

FIG. 1A

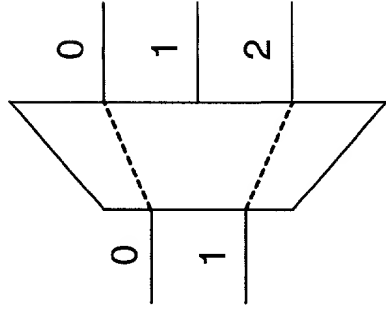


FIG. 1B

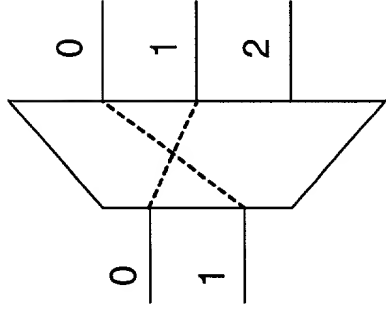


FIG. 1C

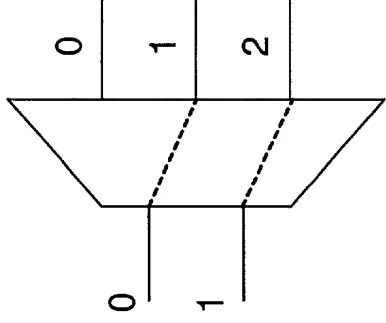


FIG. 1D

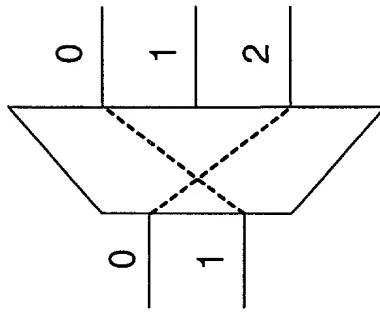


FIG. 1E

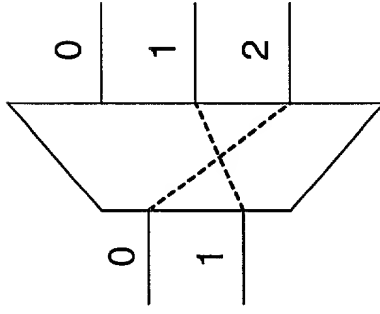


FIG. 1F

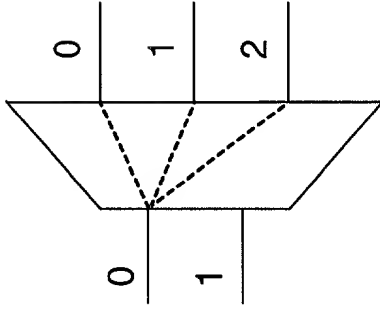


FIG. 1G

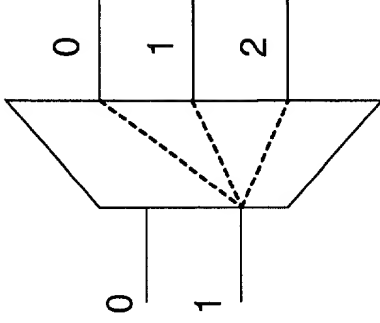


FIG. 1H

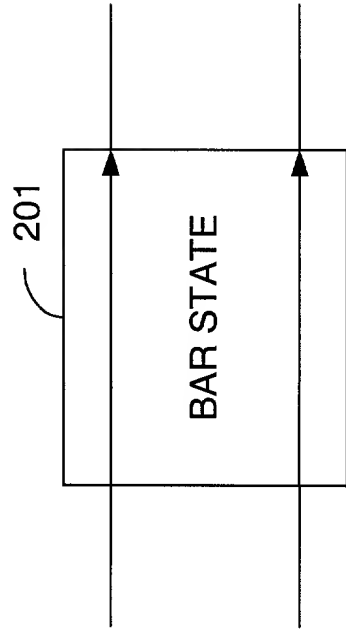


FIG. 2A

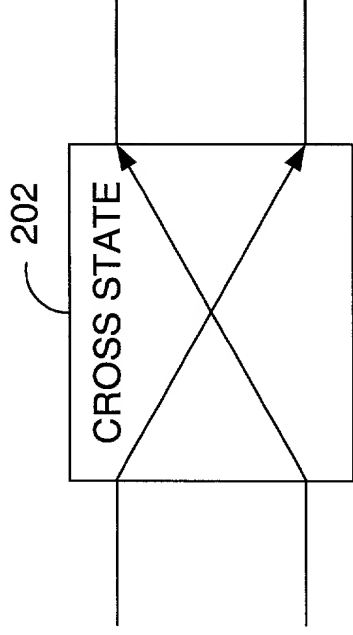


FIG. 2B

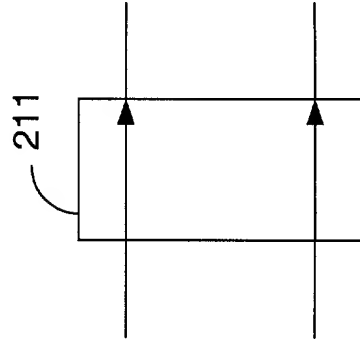


FIG. 2C

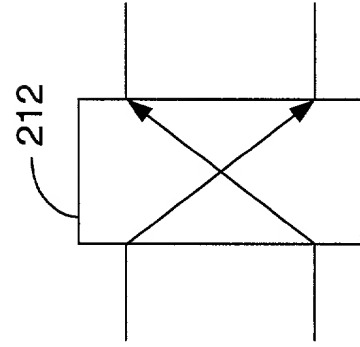


FIG. 2D

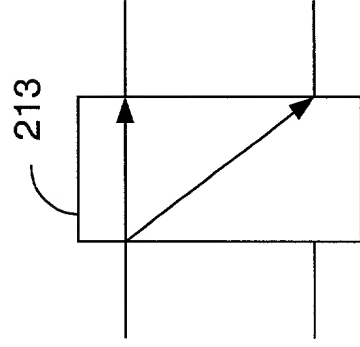


FIG. 2E

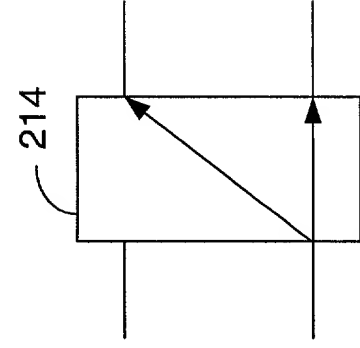


FIG. 2F

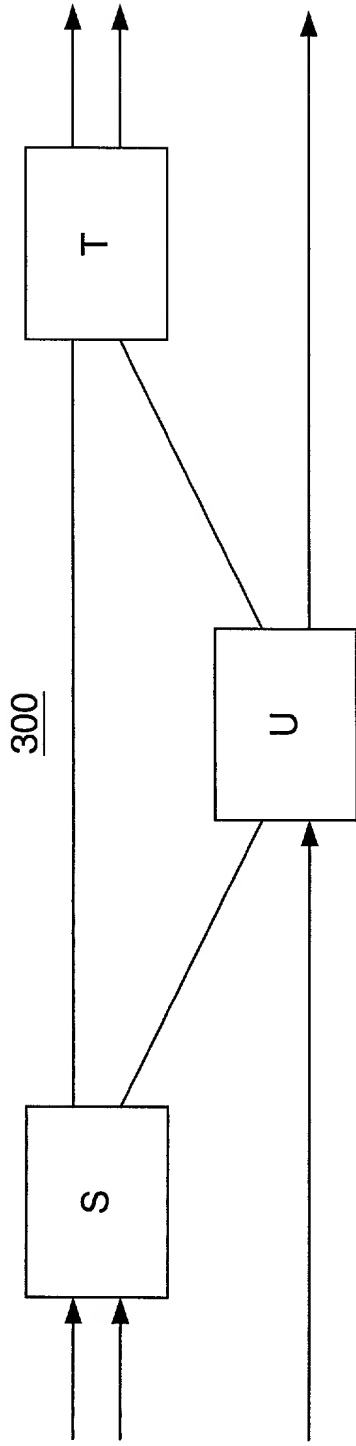


FIG. 3A

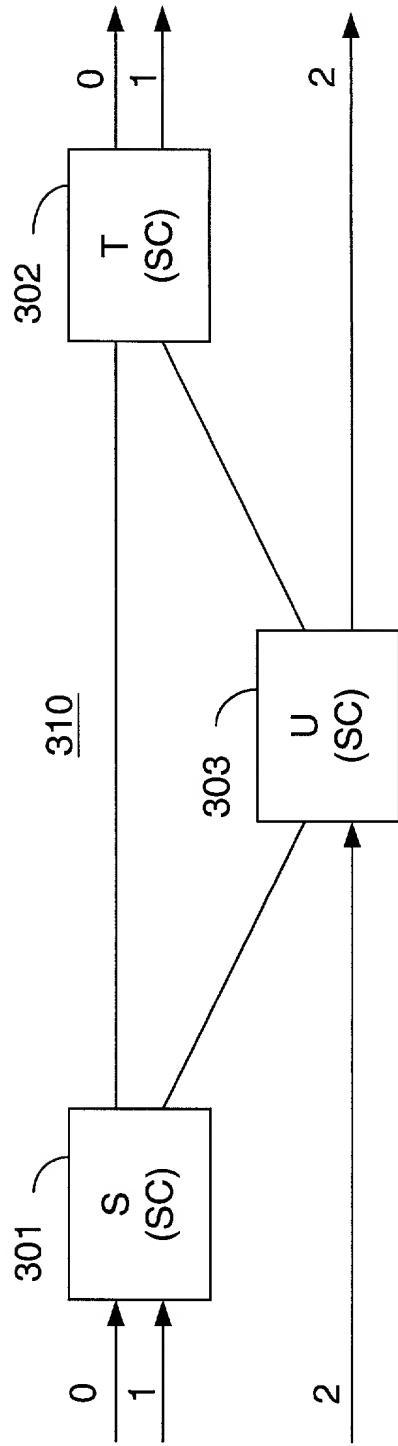


FIG. 3B

400

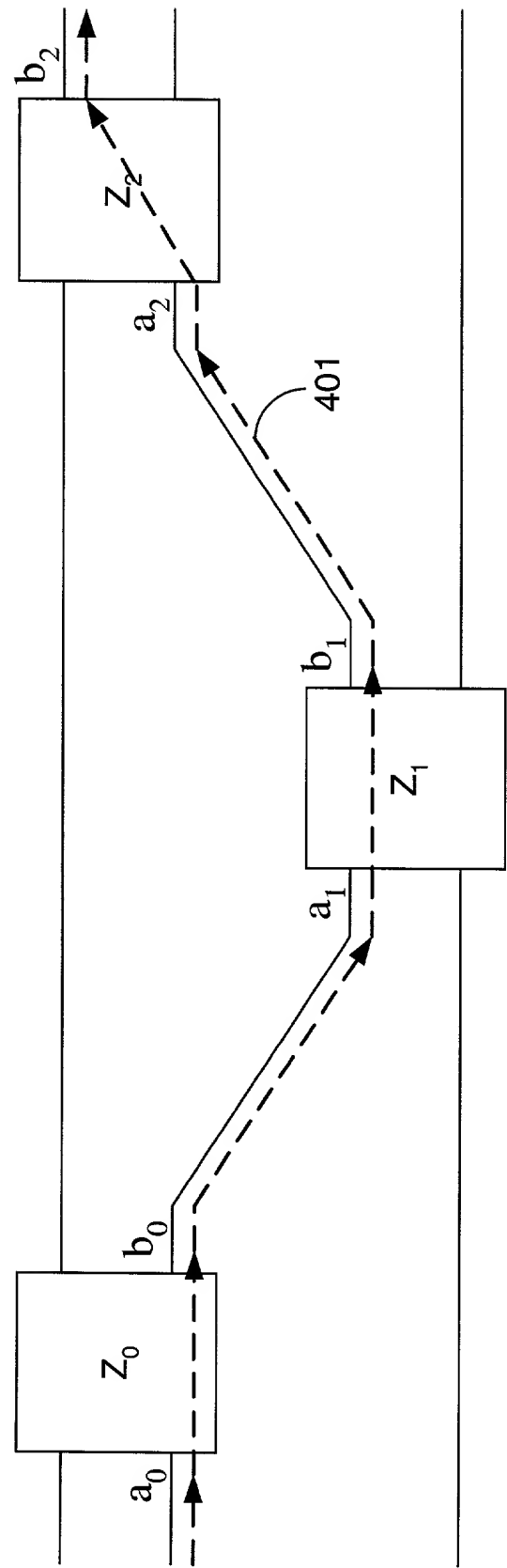


FIG. 4

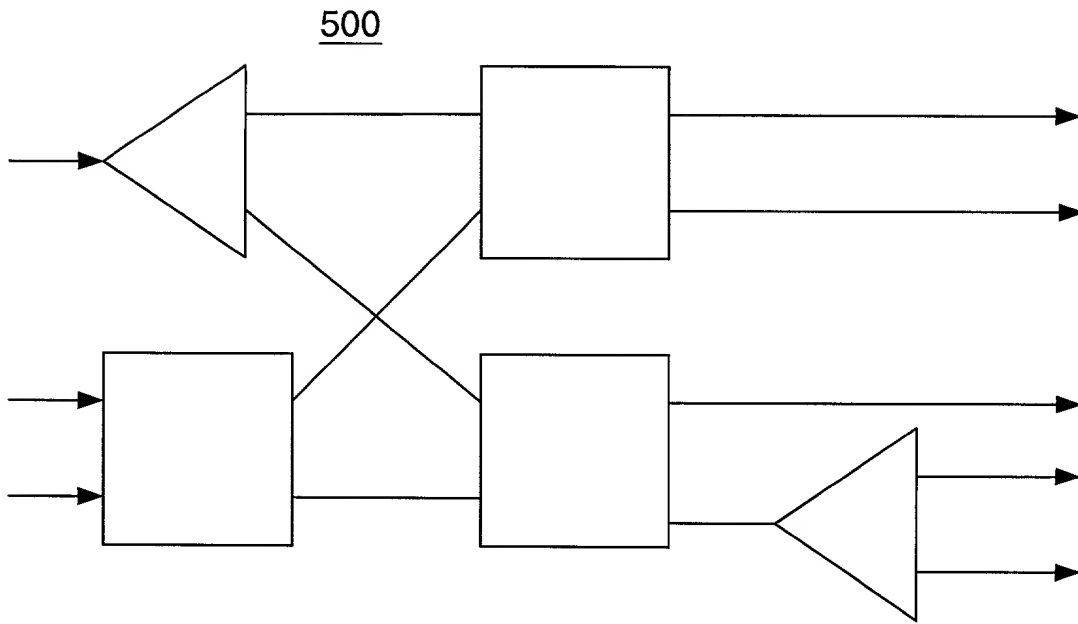


FIG. 5A

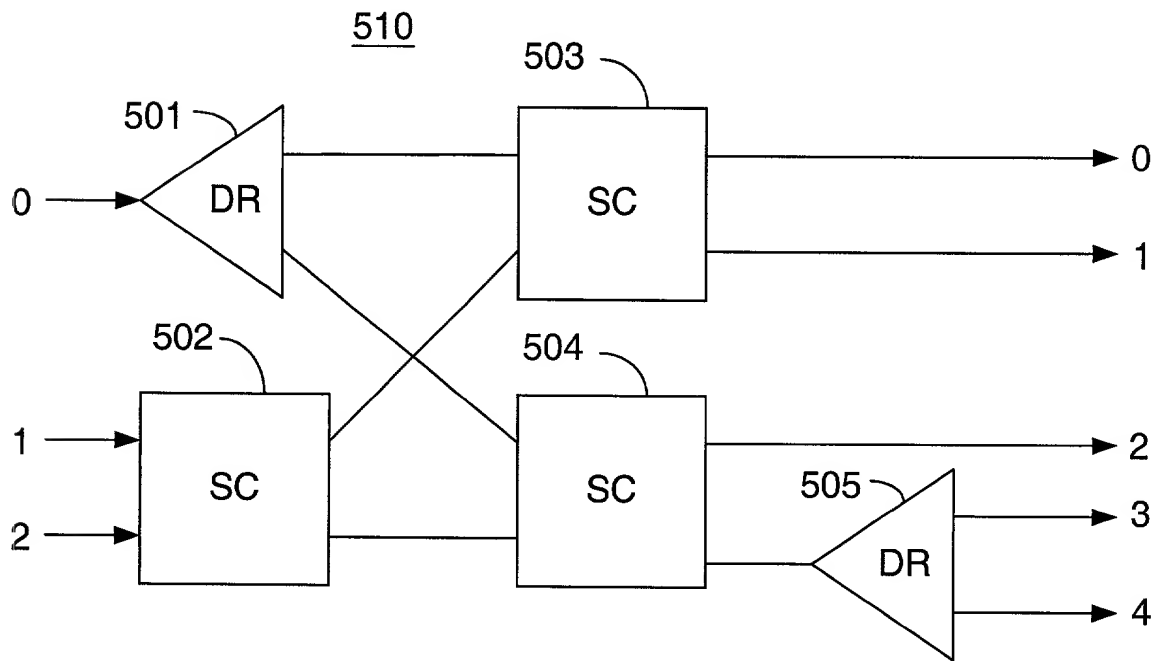


FIG. 5B

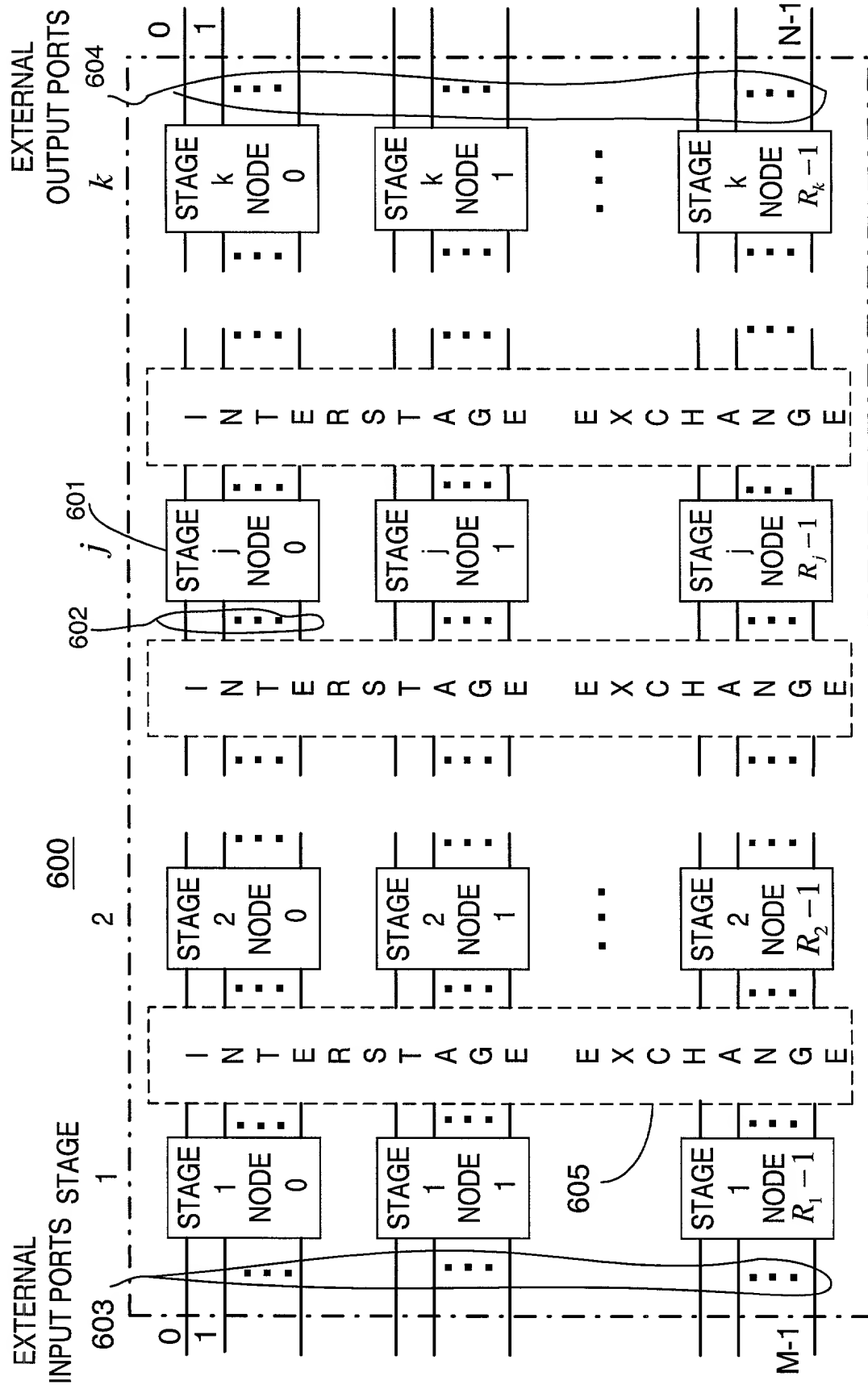


FIG. 6A

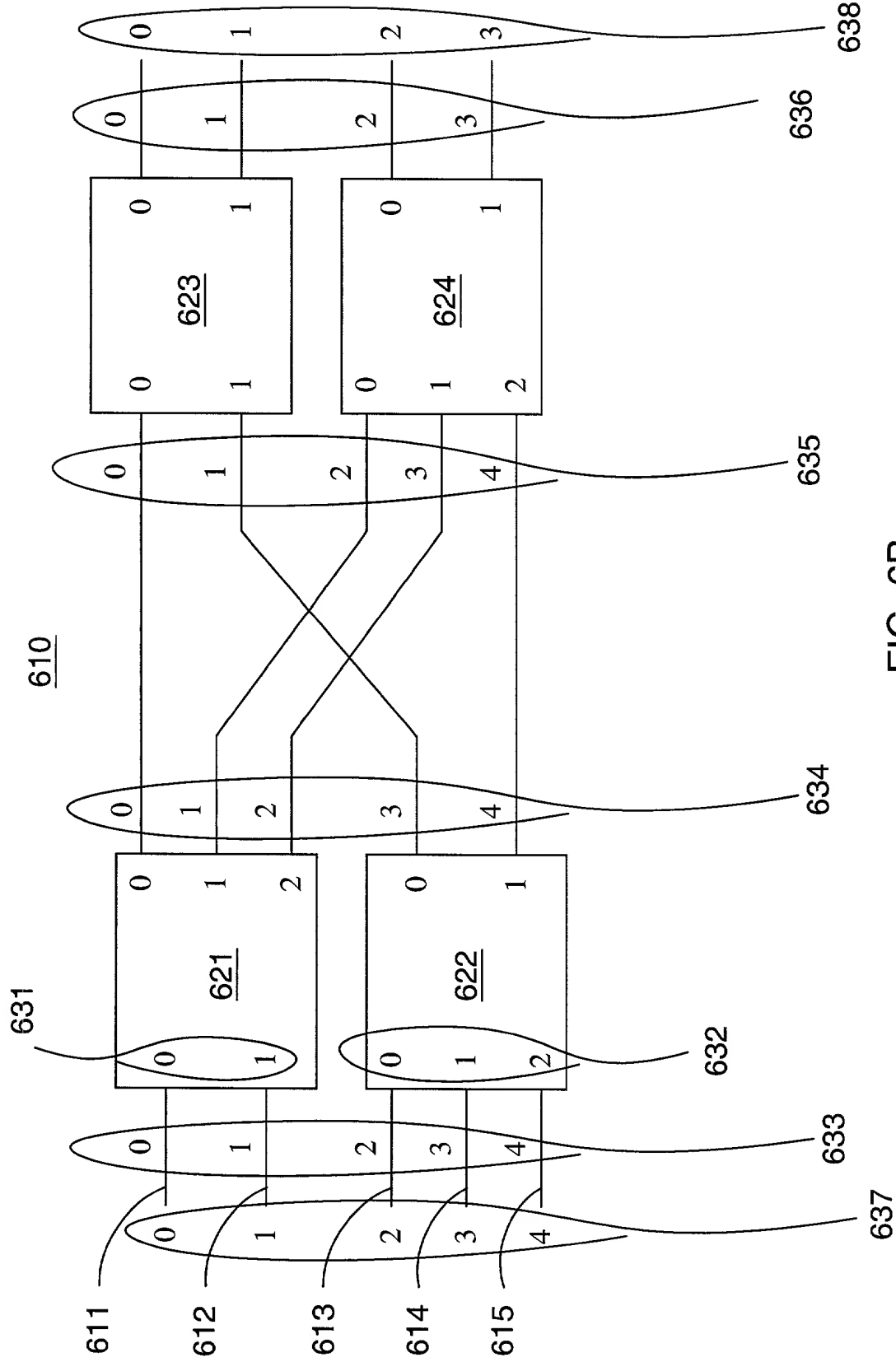


FIG. 6B

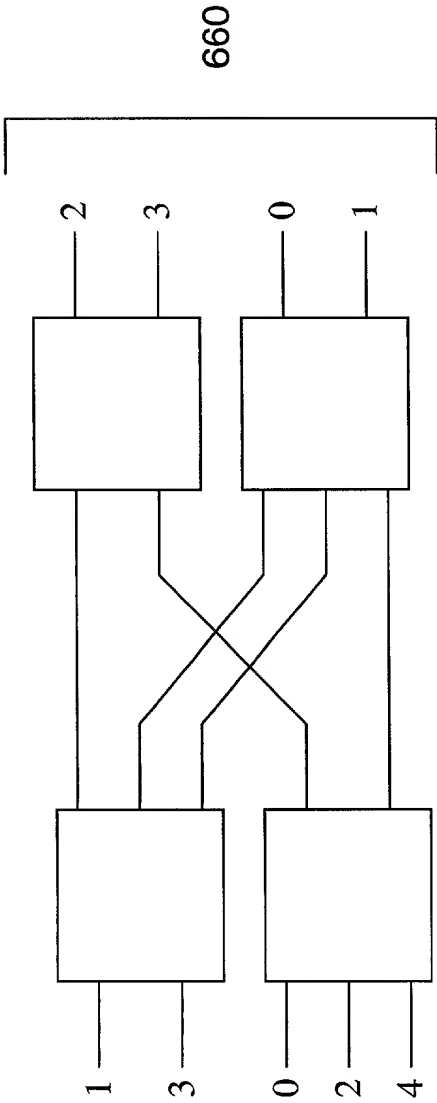


FIG. 6C

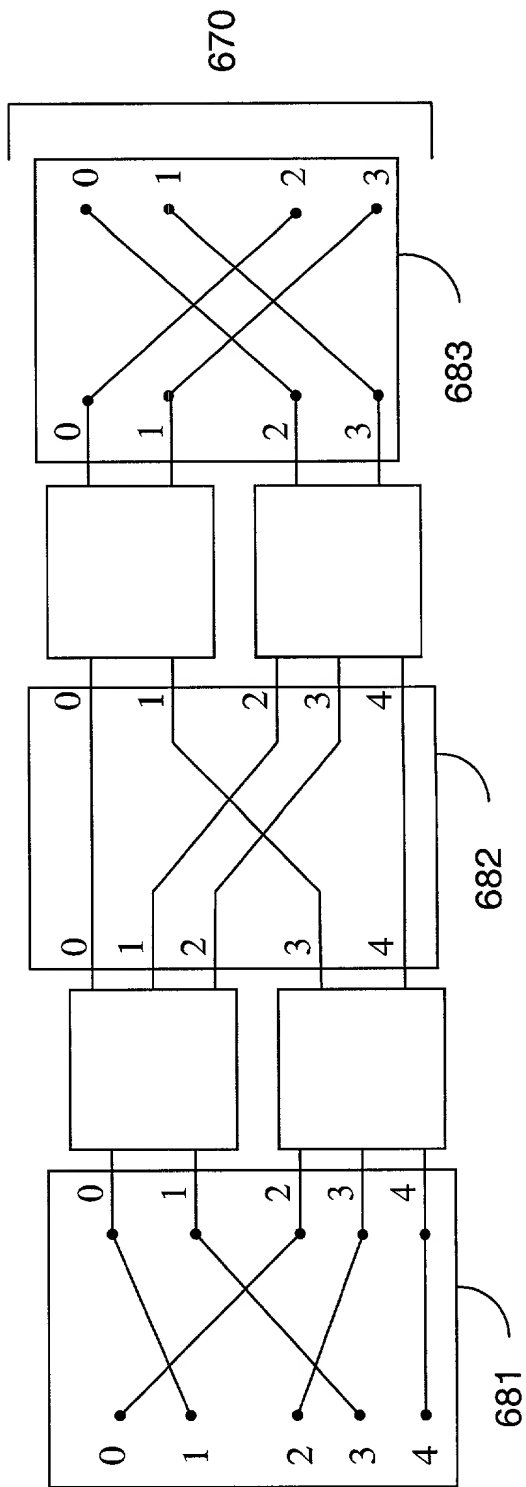
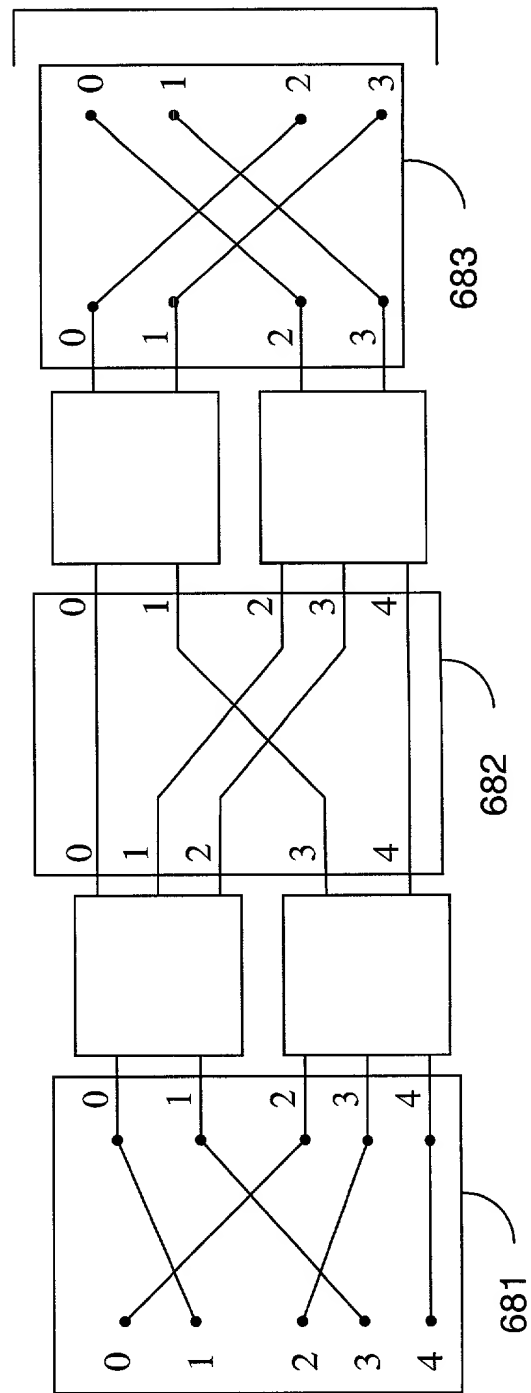


FIG. 6D



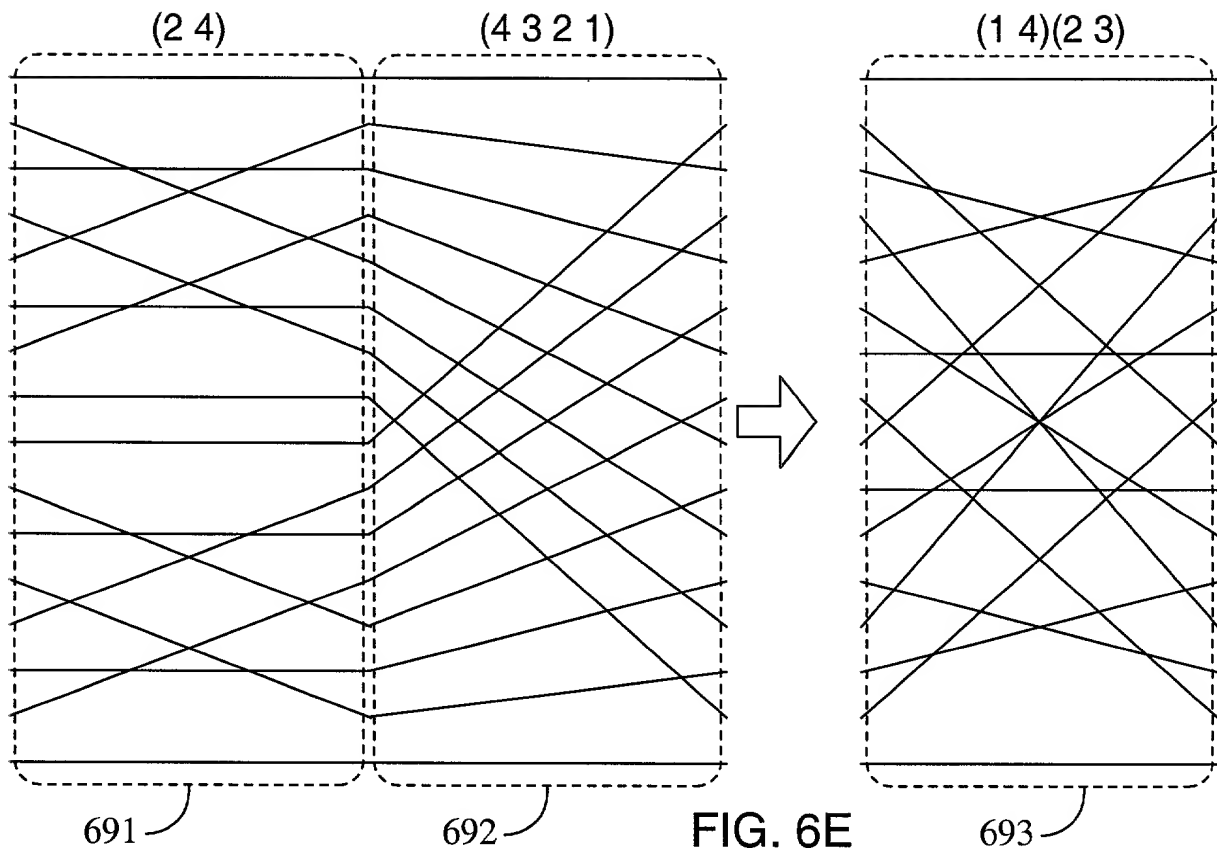


FIG. 6E

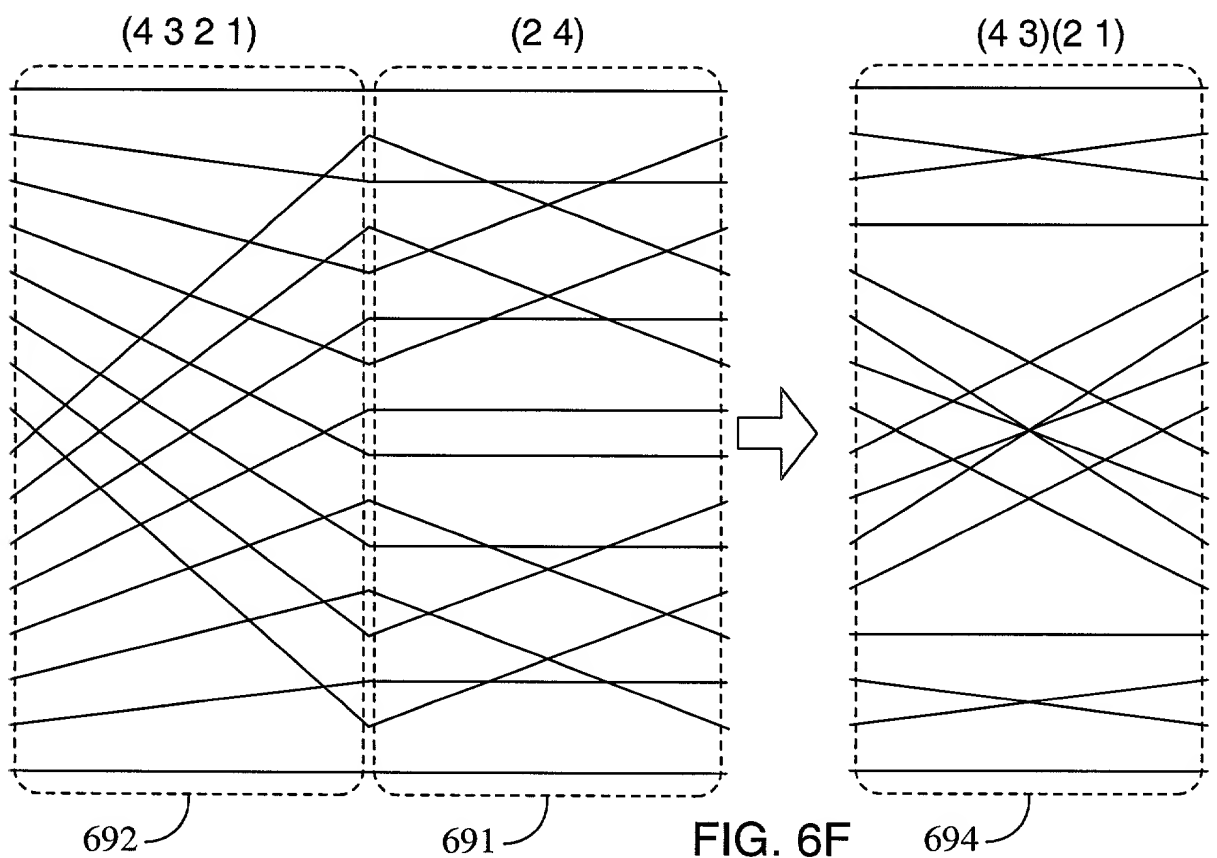


FIG. 6F

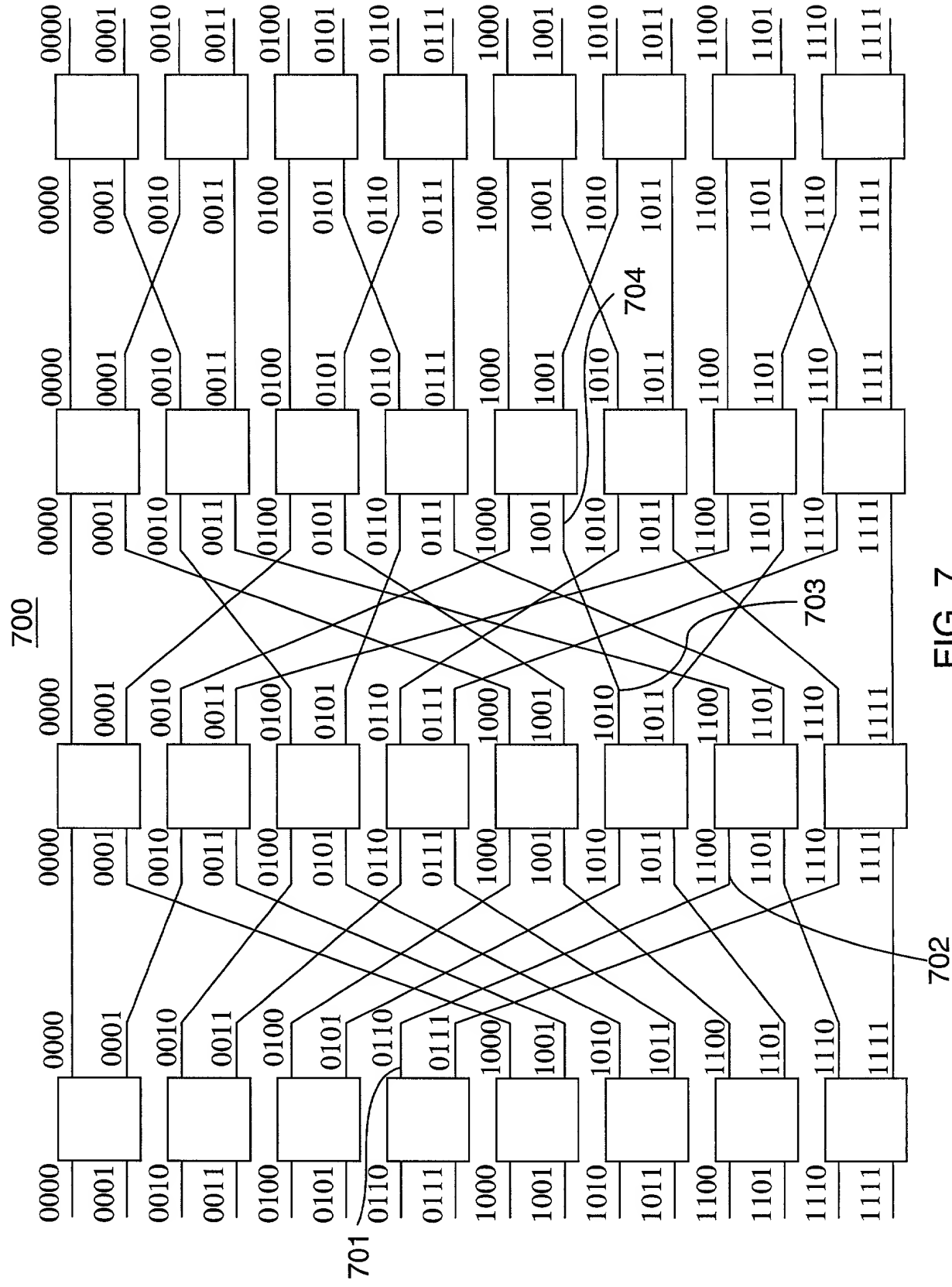


FIG. 7

800

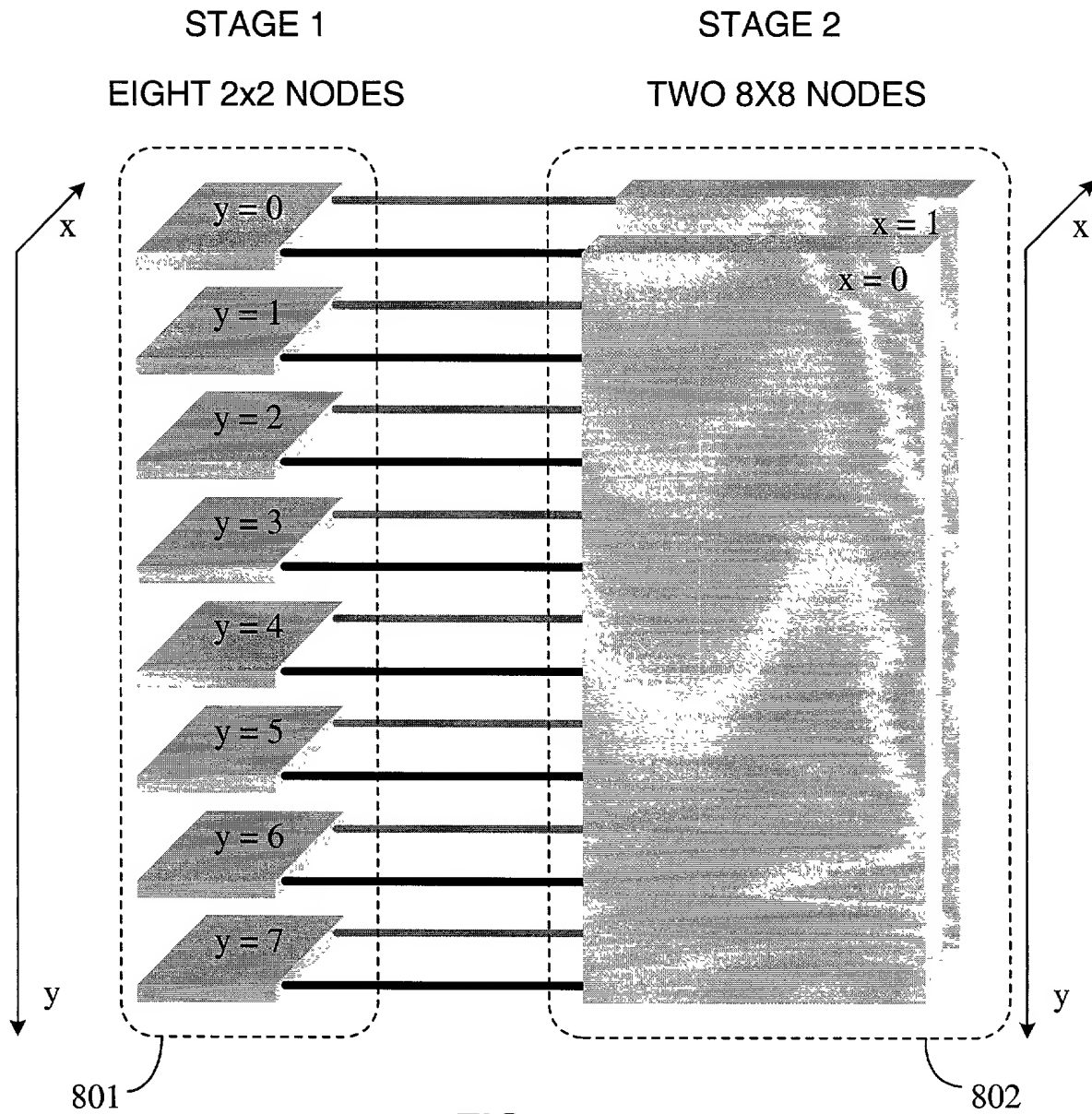


FIG. 8

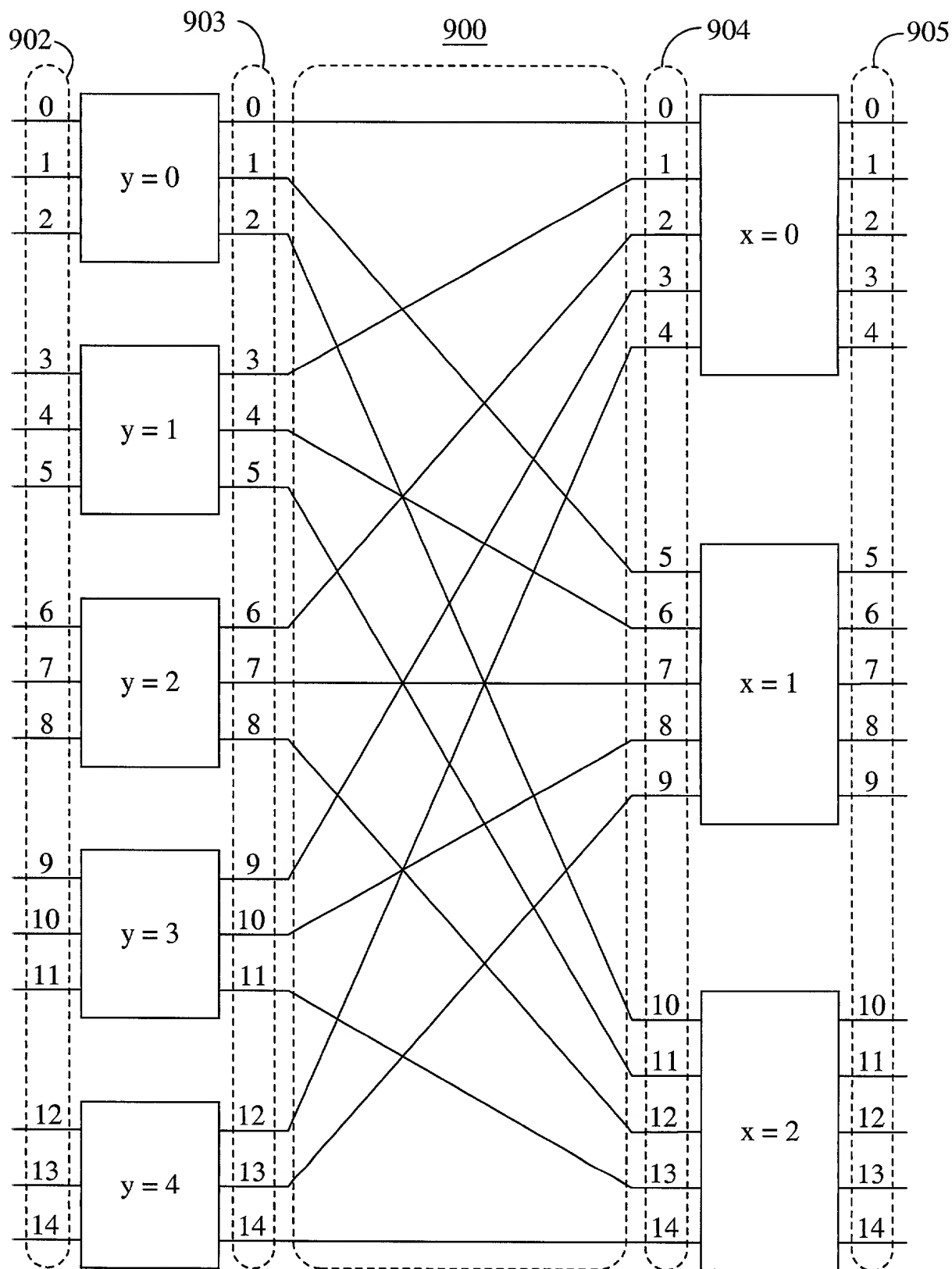


FIG. 9

901

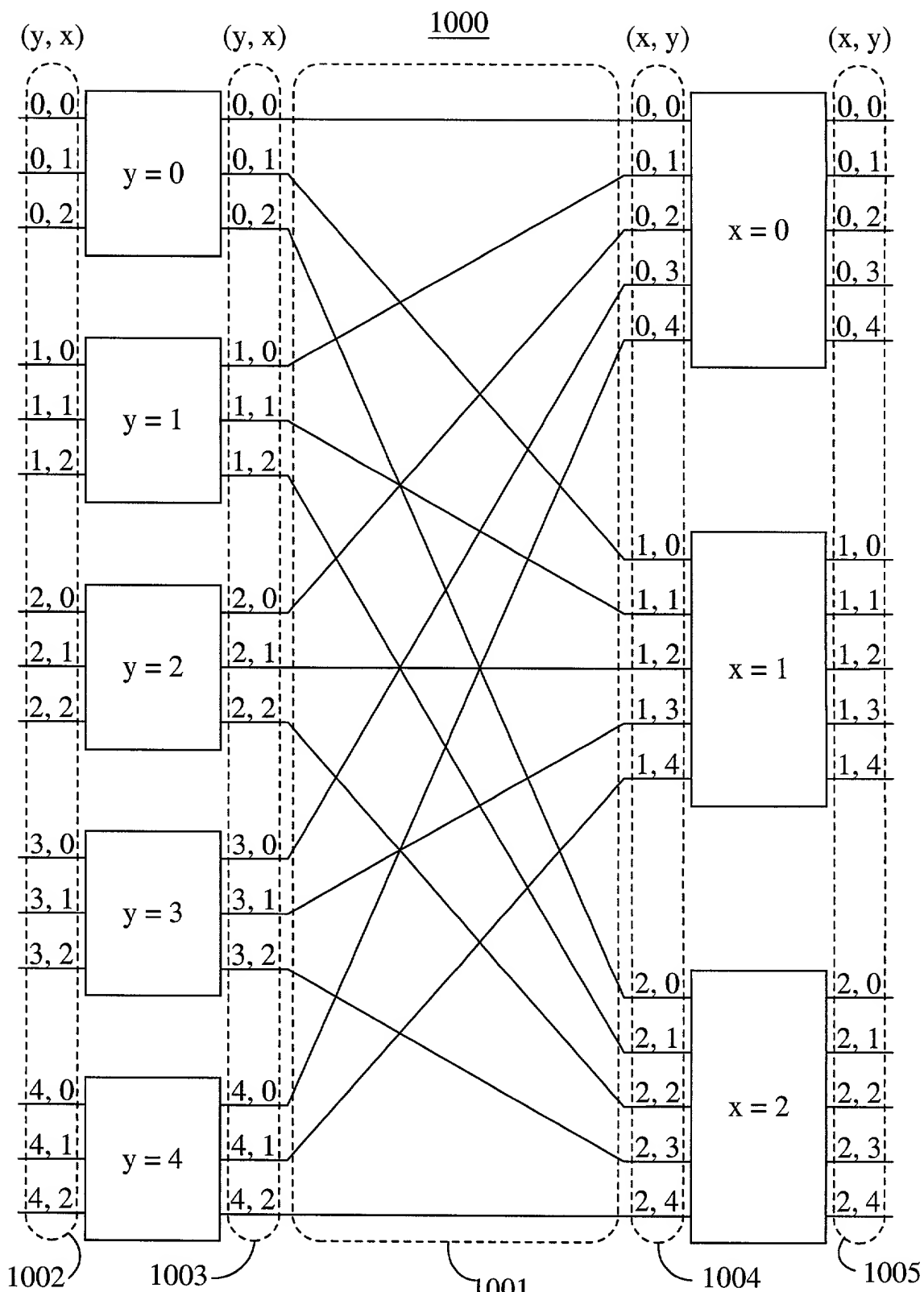
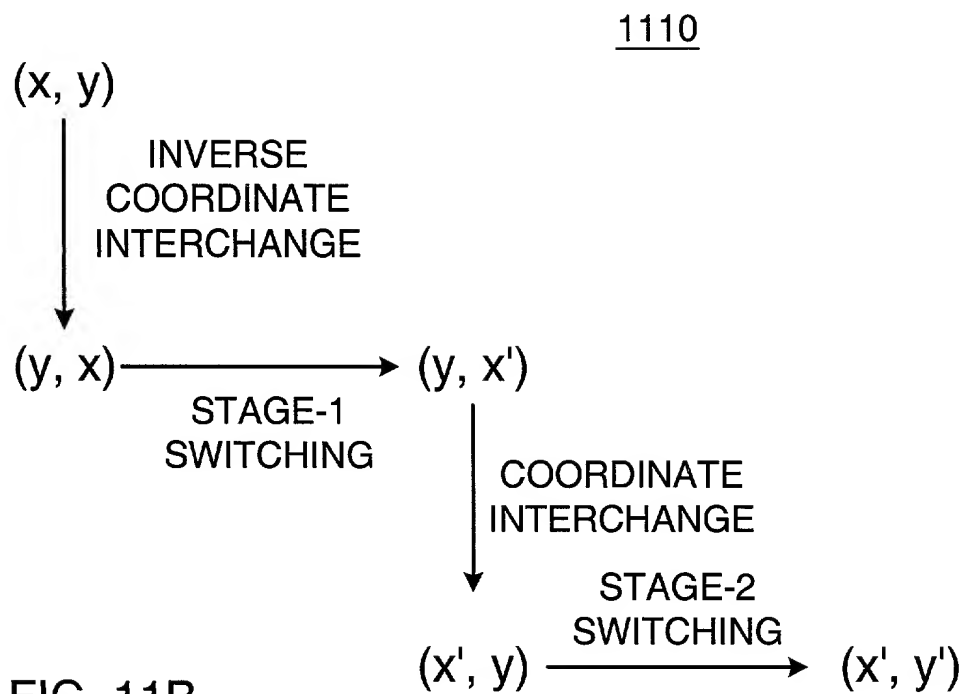
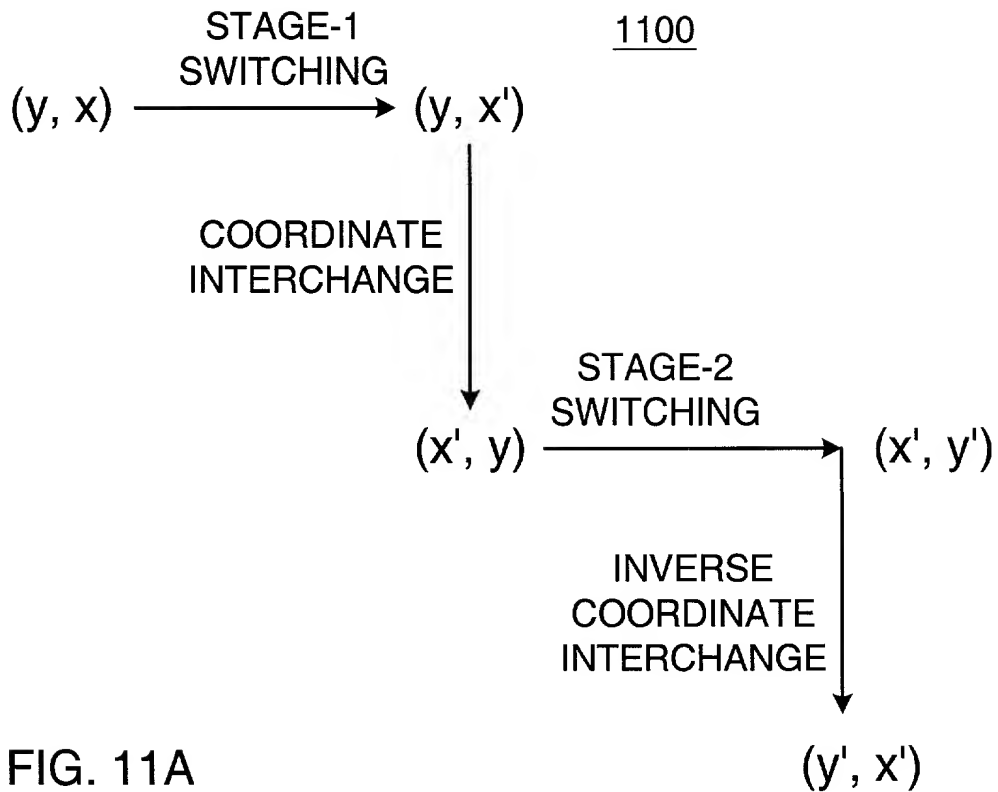


FIG. 10



1200

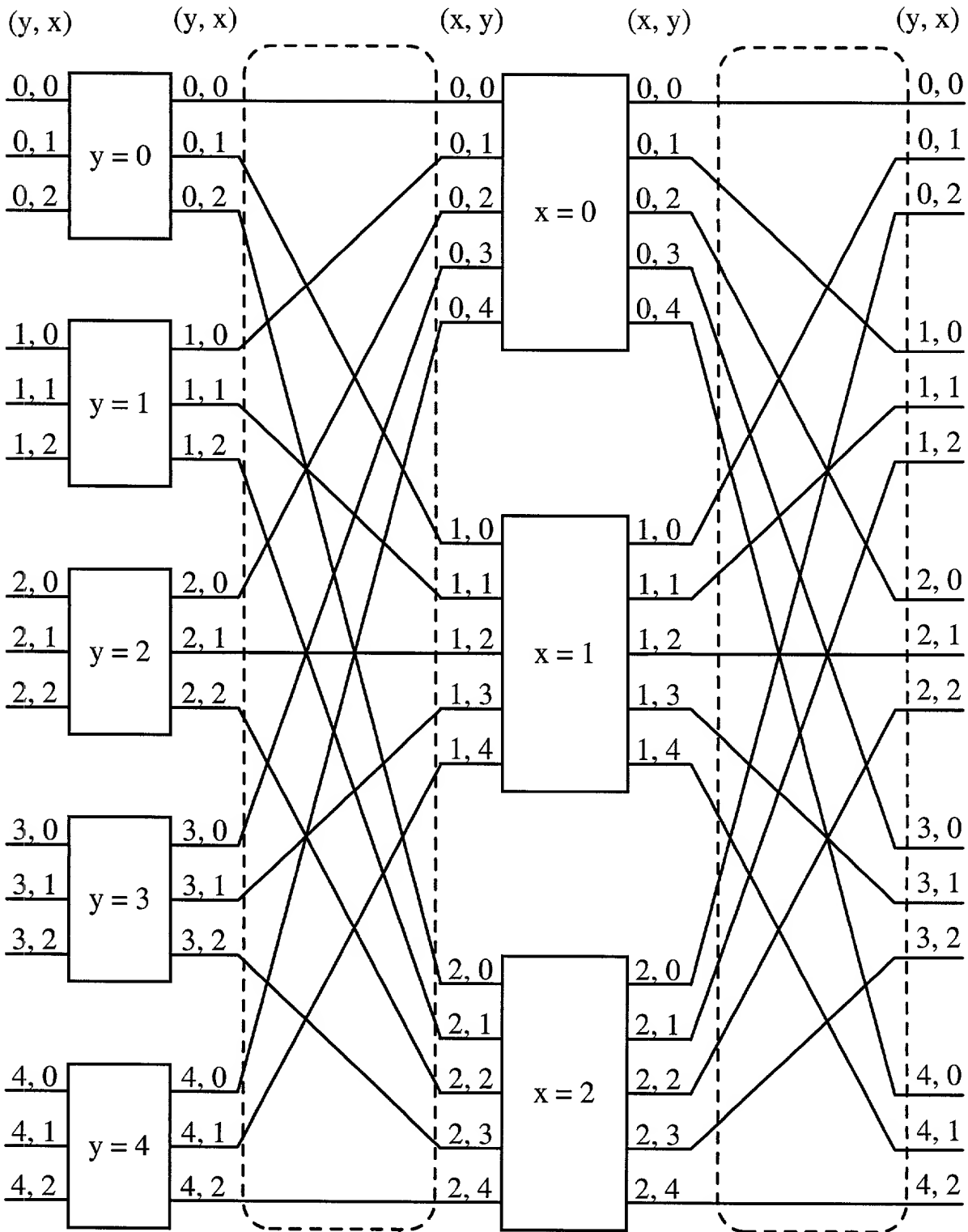
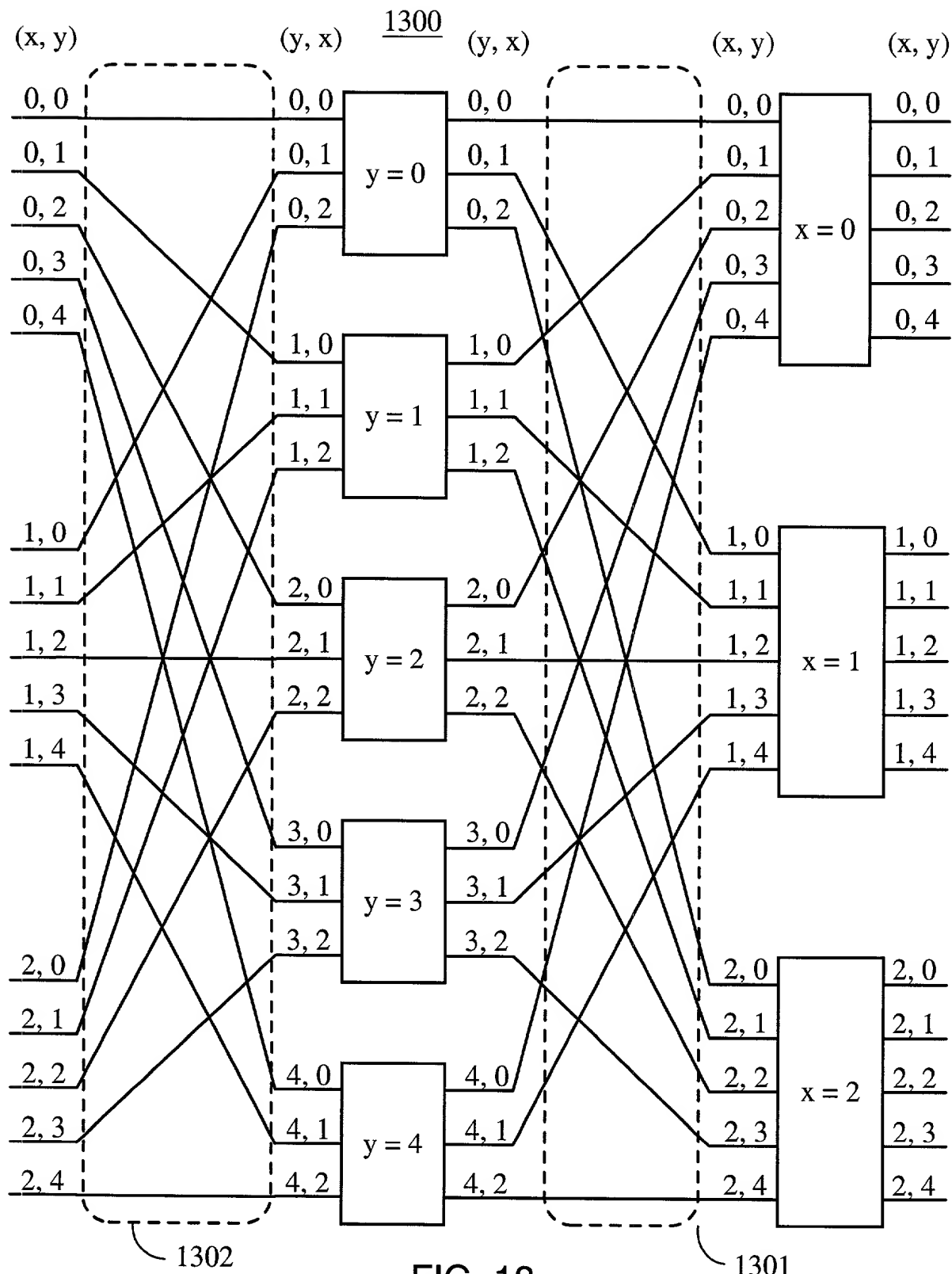
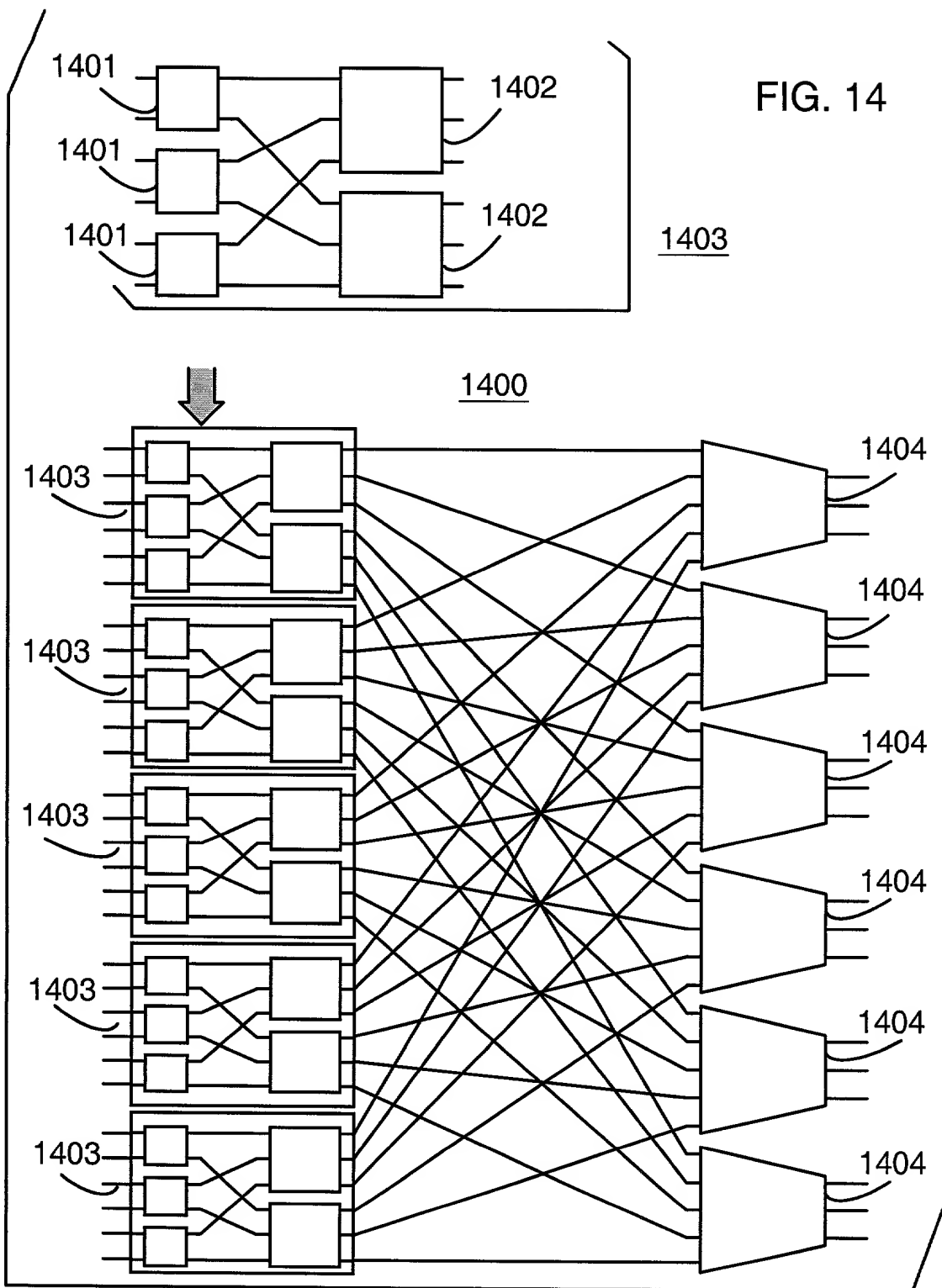


FIG. 12

1201

1202





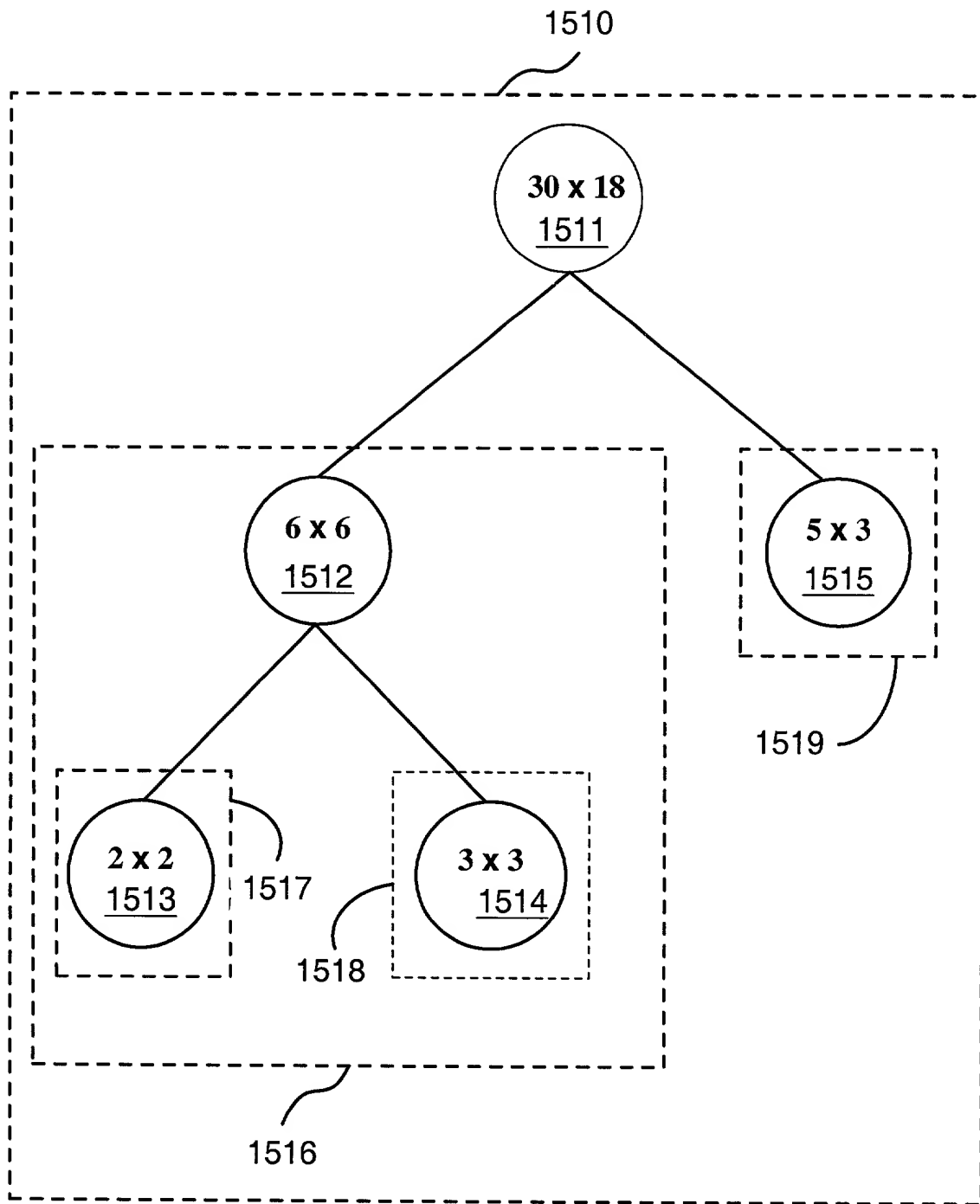


FIG. 15

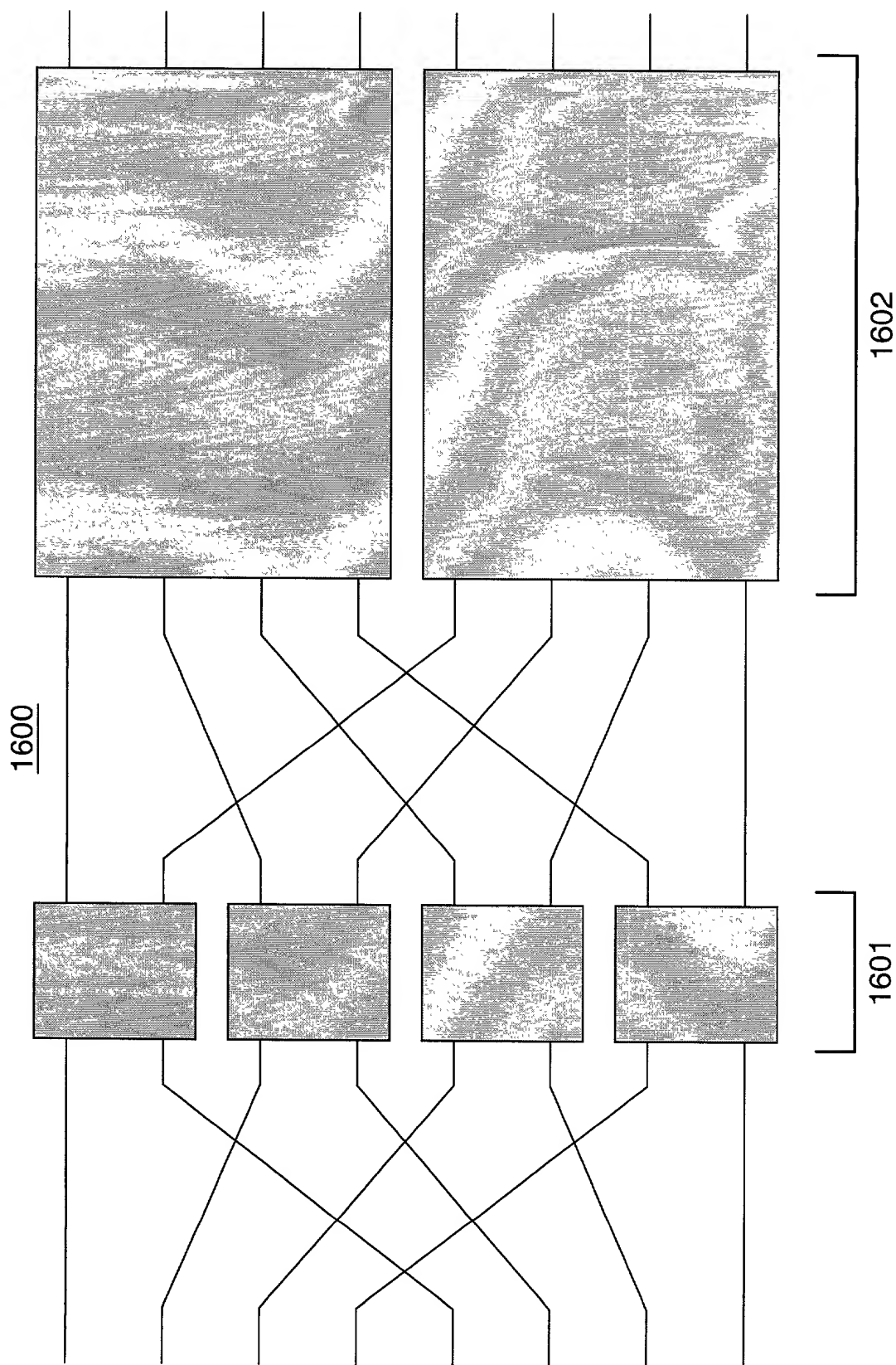


FIG. 16

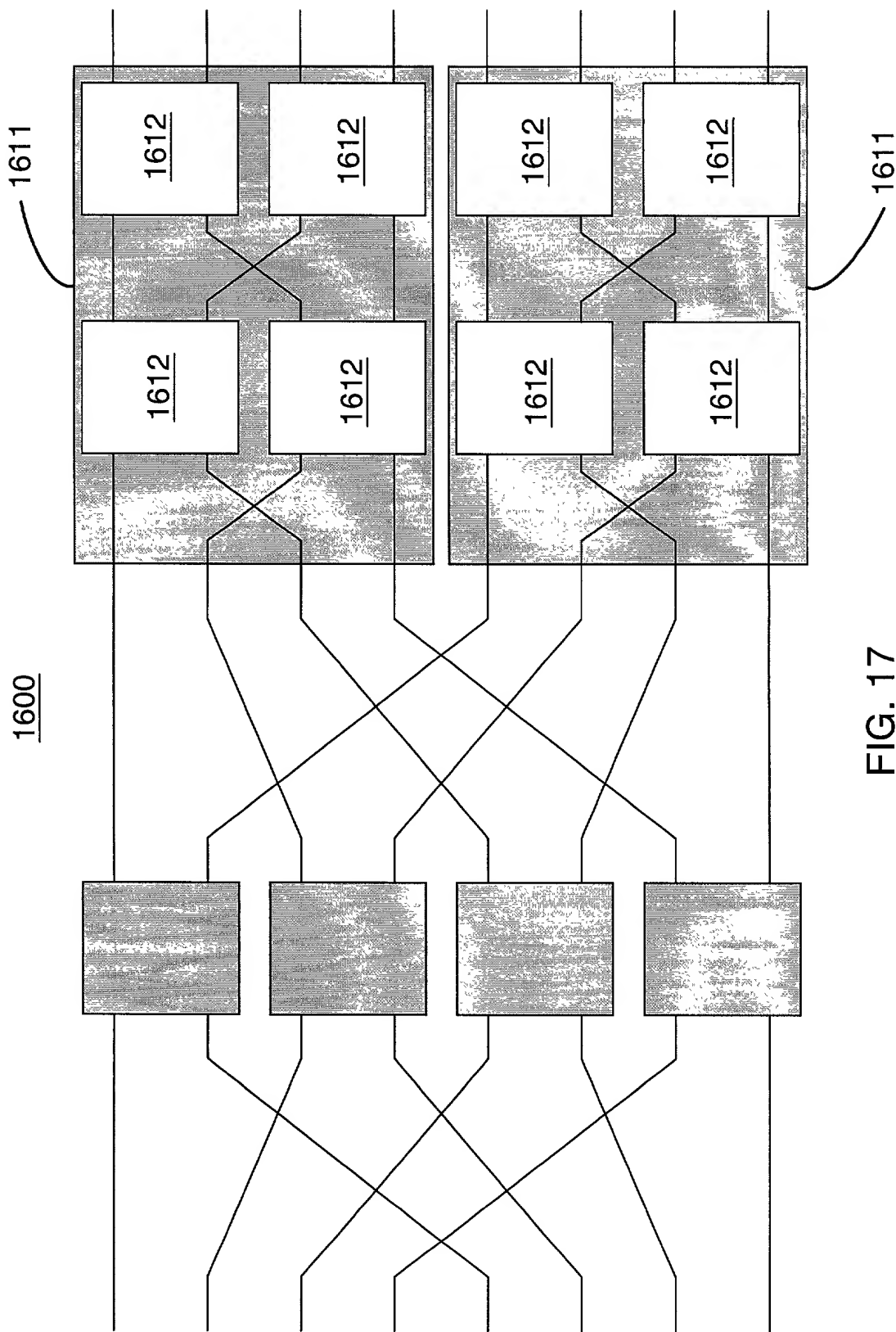
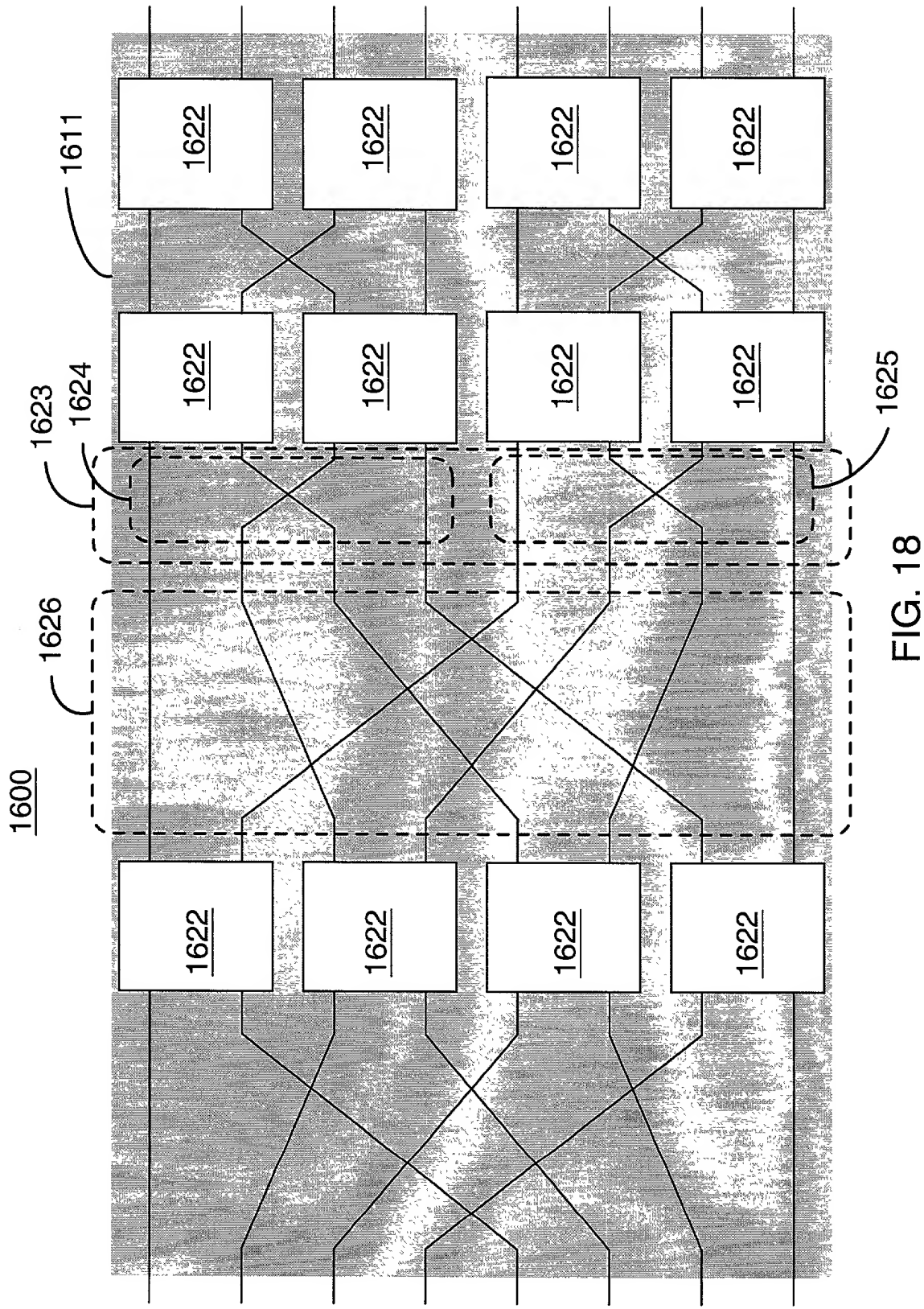


FIG. 17



1600

1631

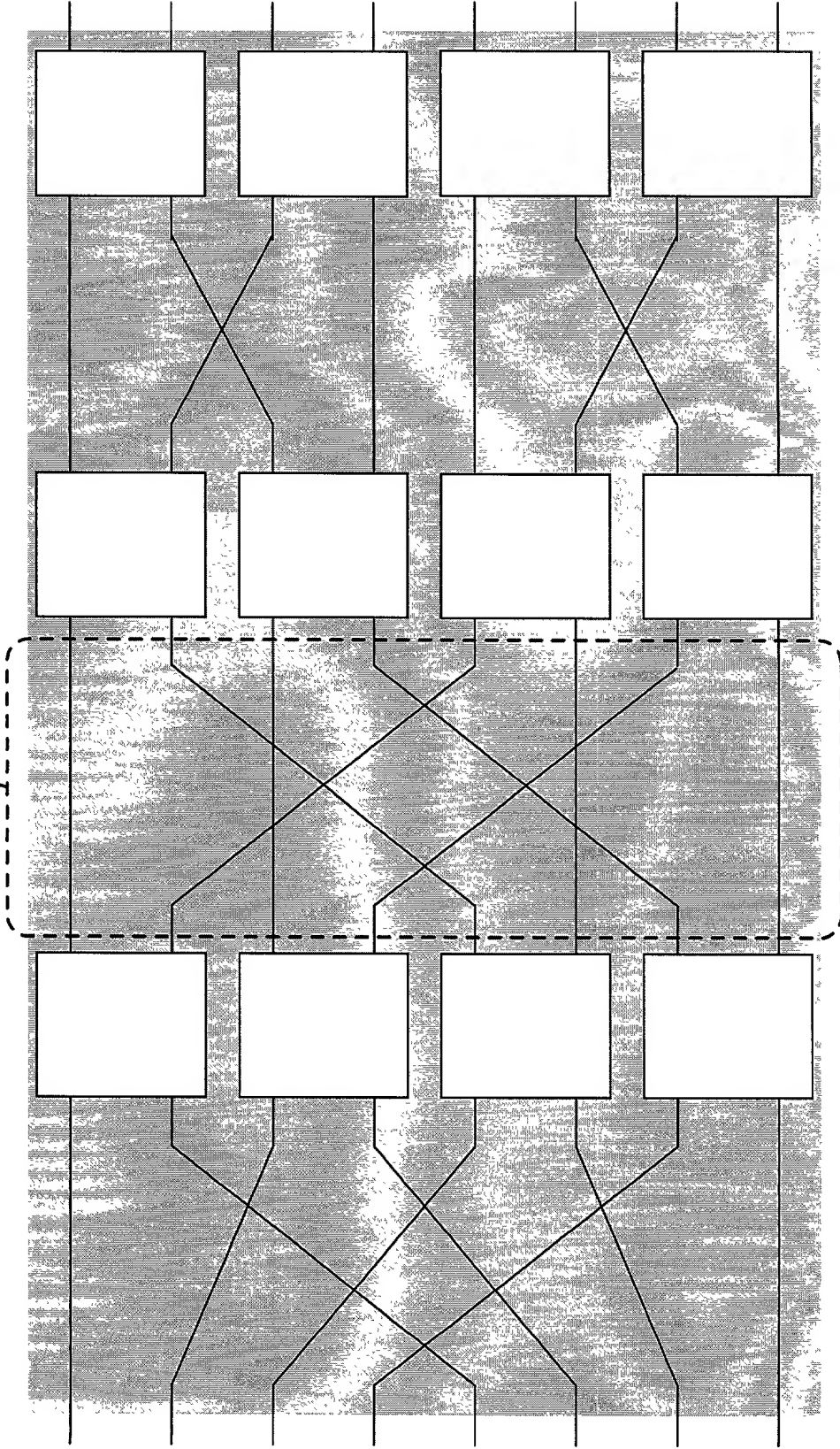


FIG. 19

2000

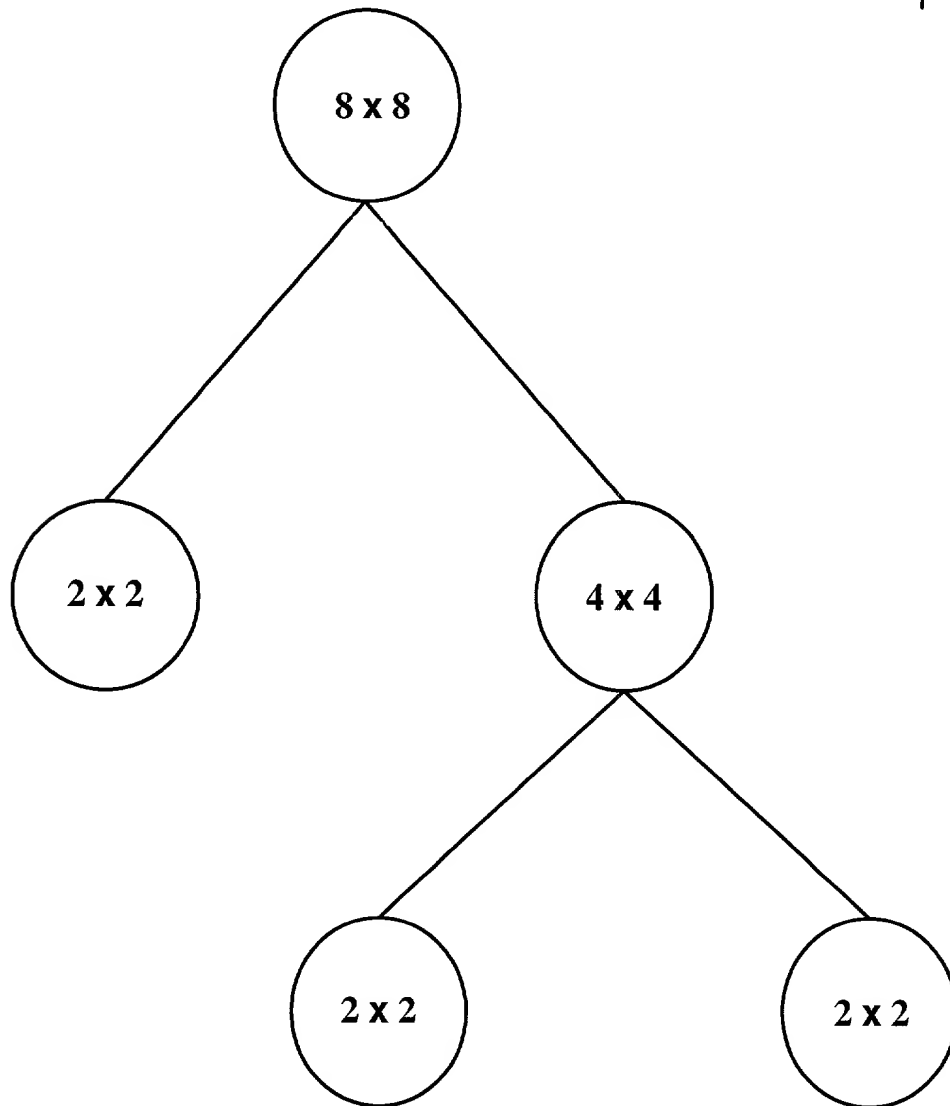


FIG. 20

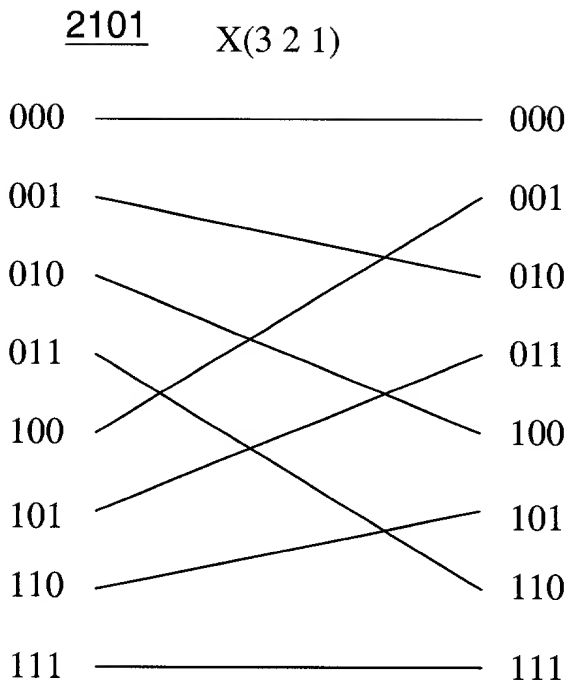


FIG. 21A

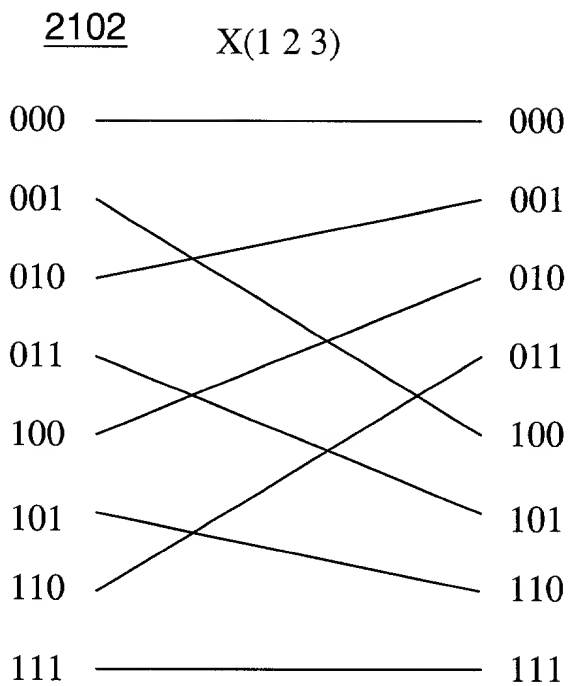


FIG. 21B

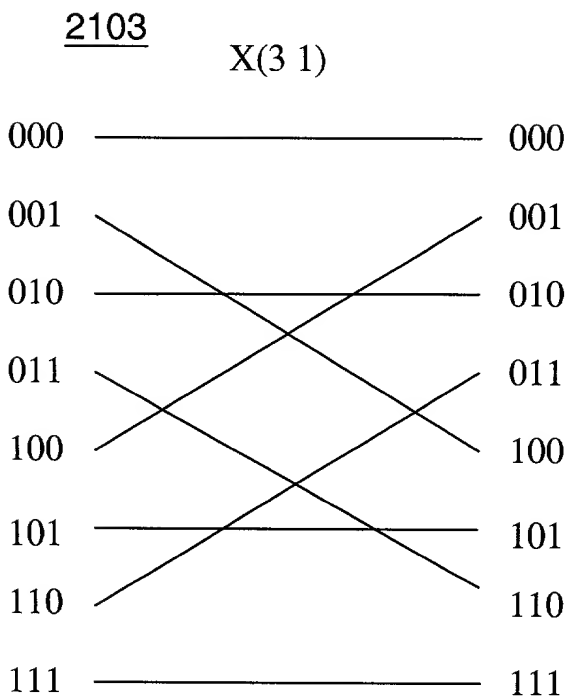


FIG. 21C

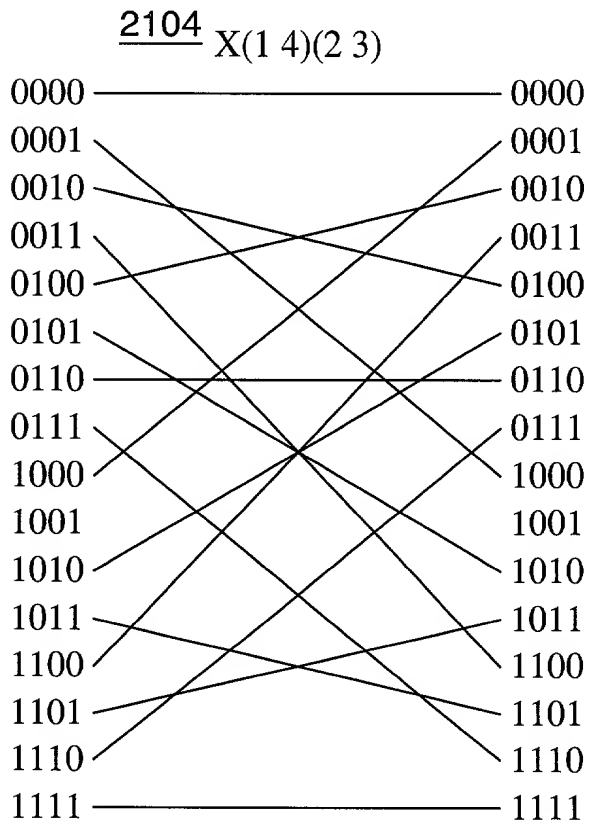
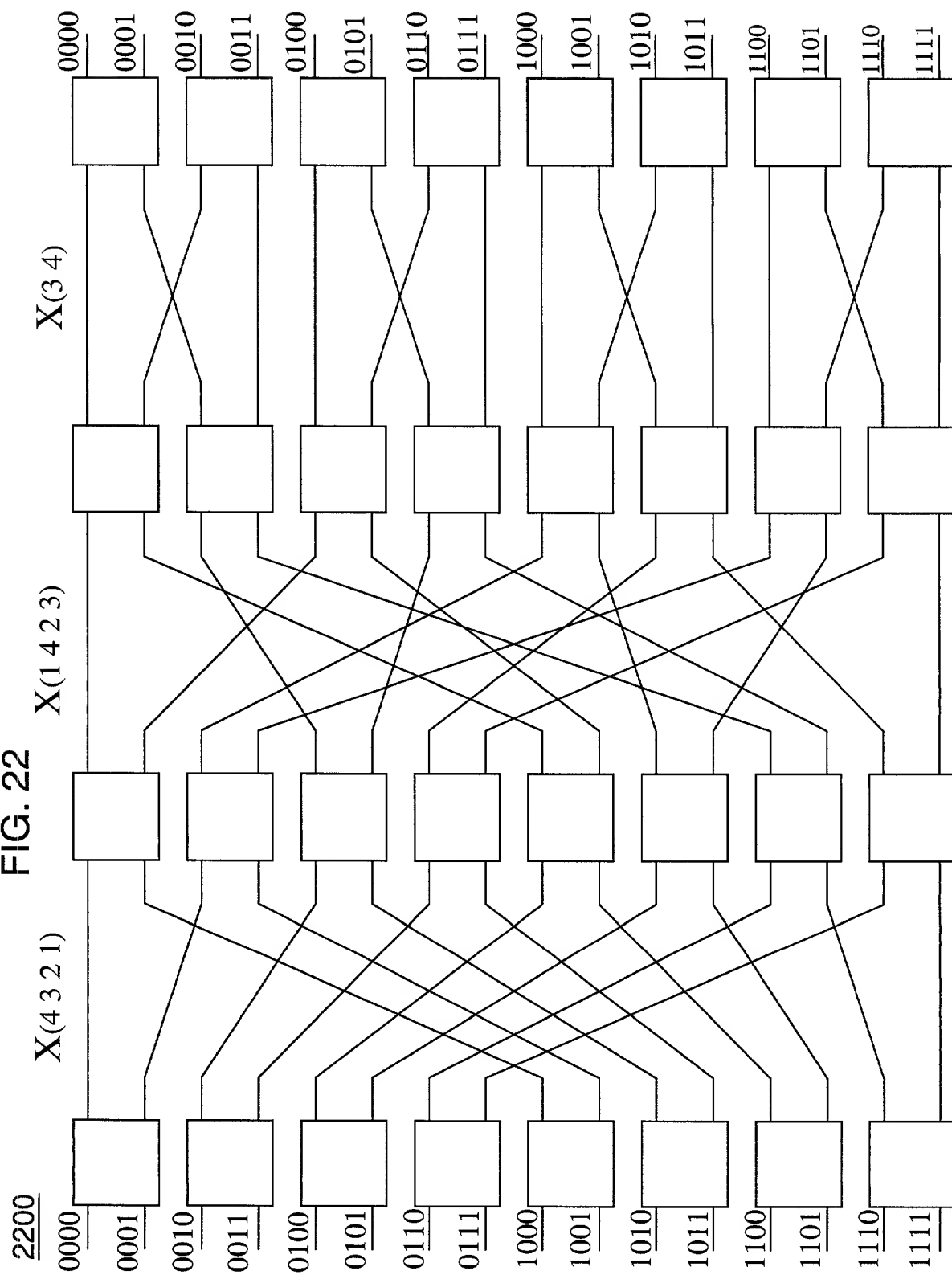


FIG. 21D

FIG. 22



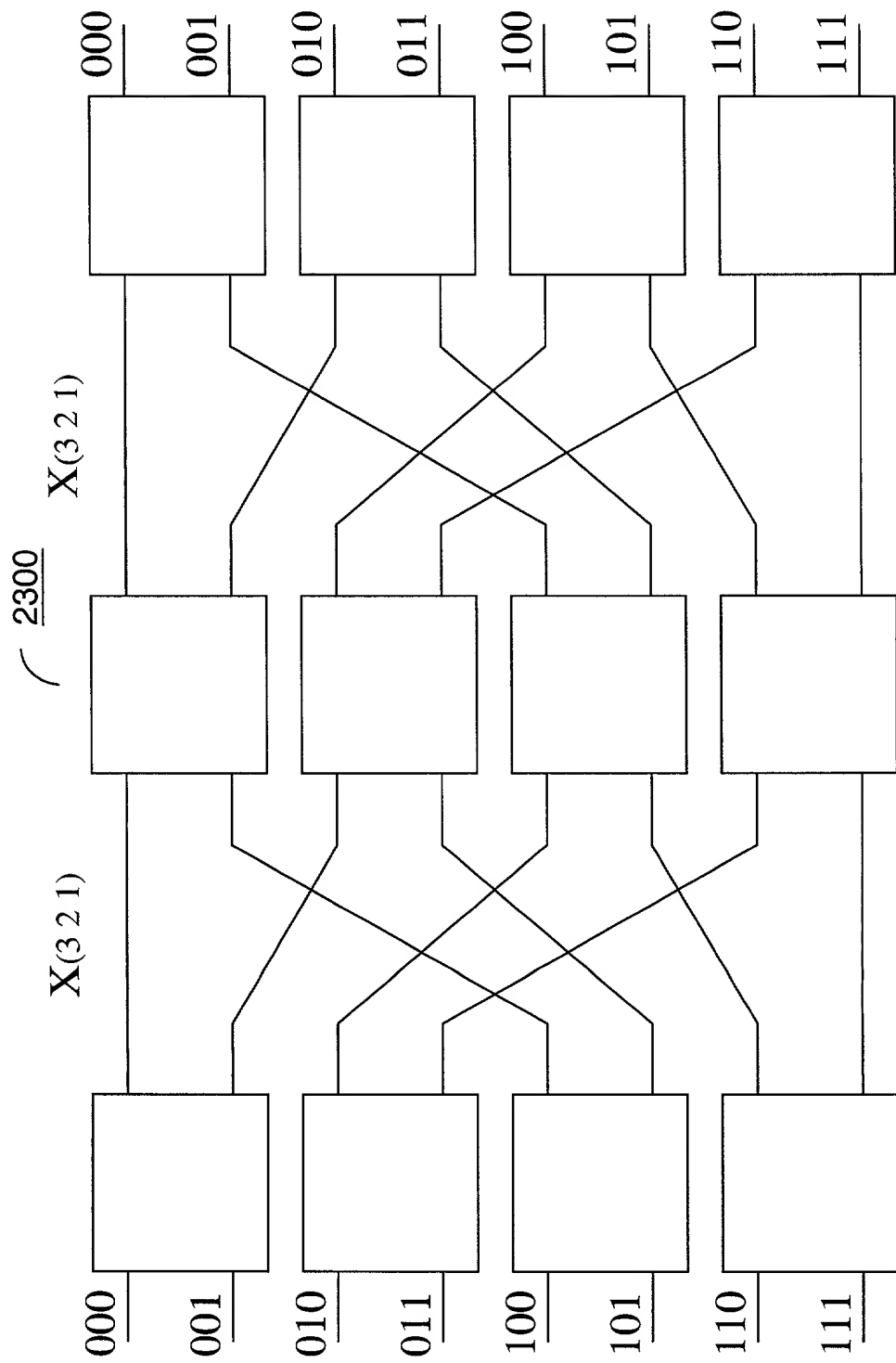


FIG. 23

2400

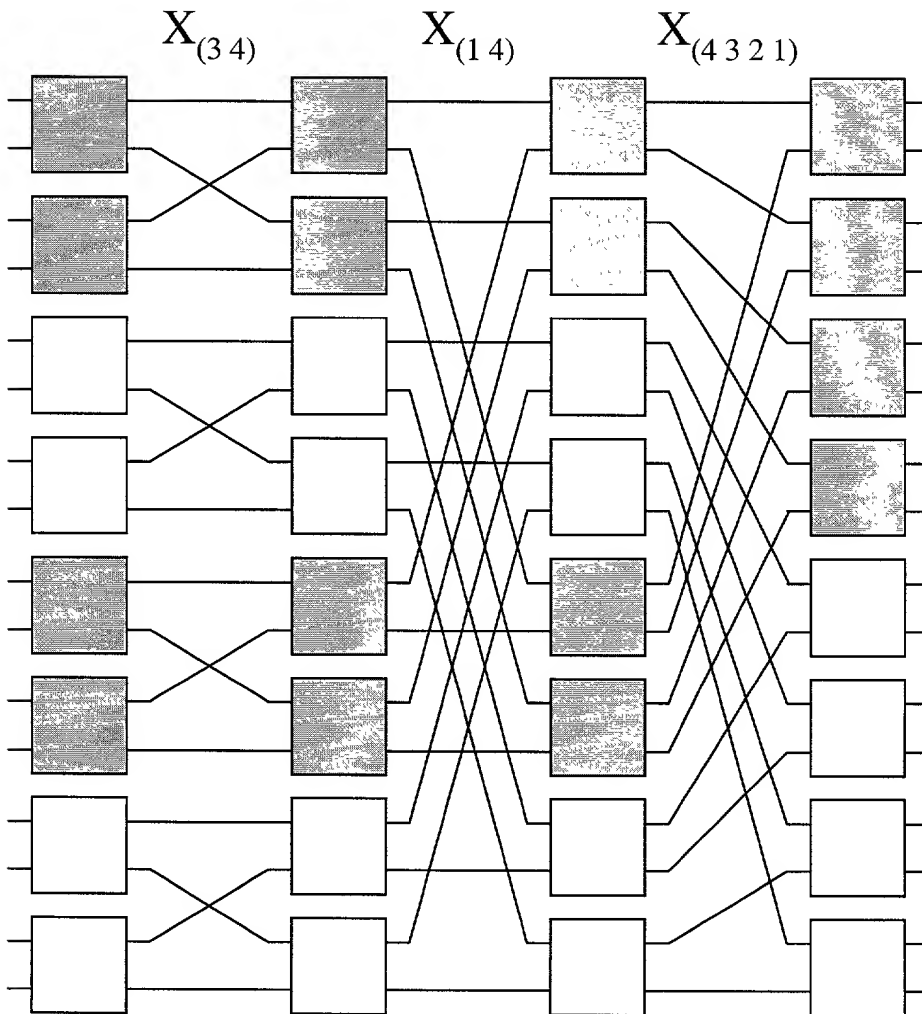


FIG. 24

FIG. 25

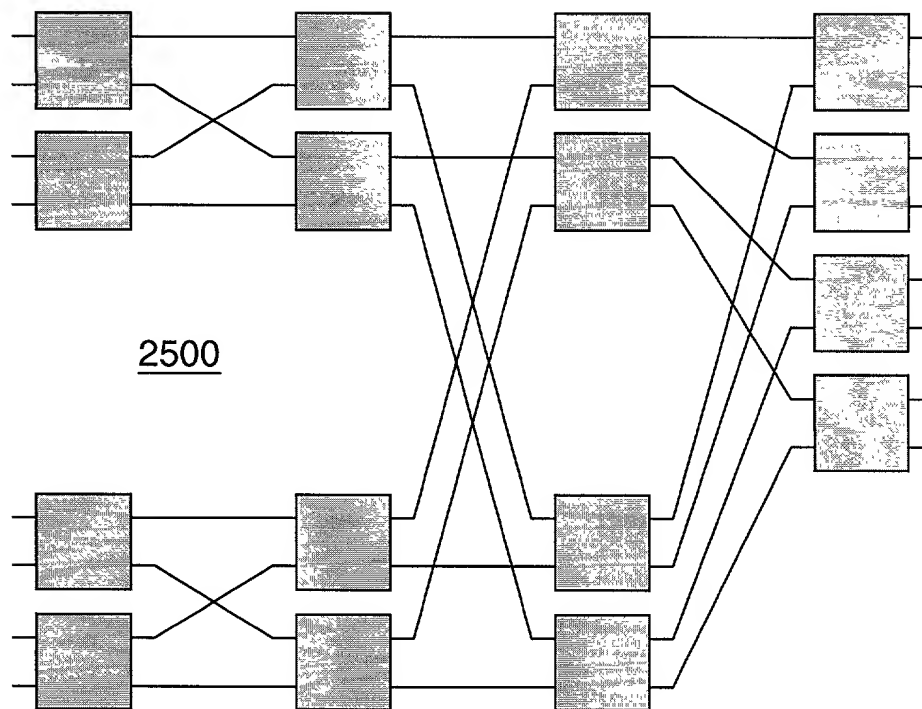
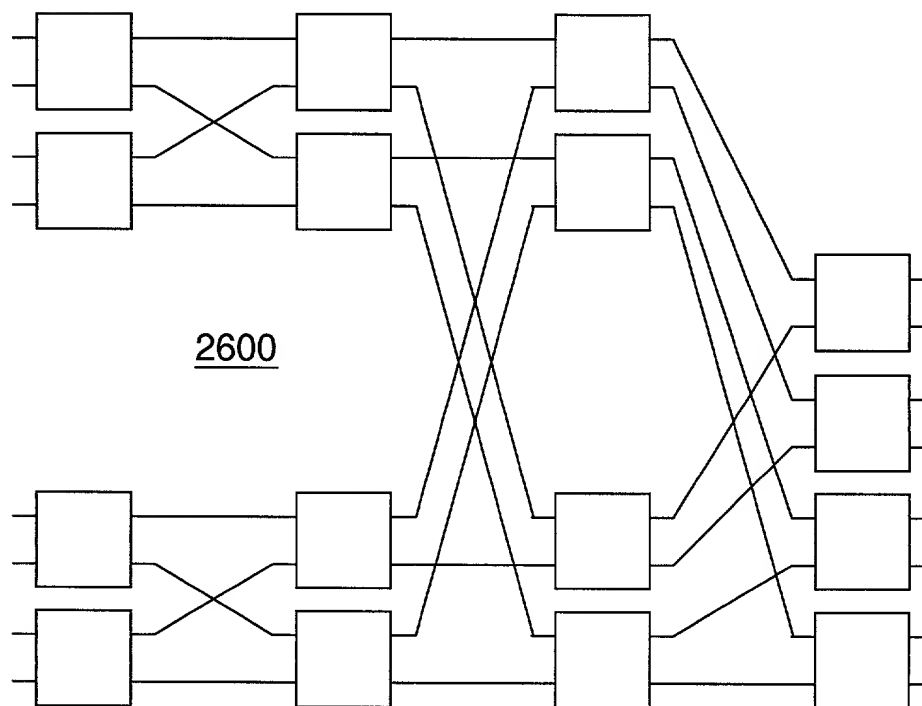


FIG. 26



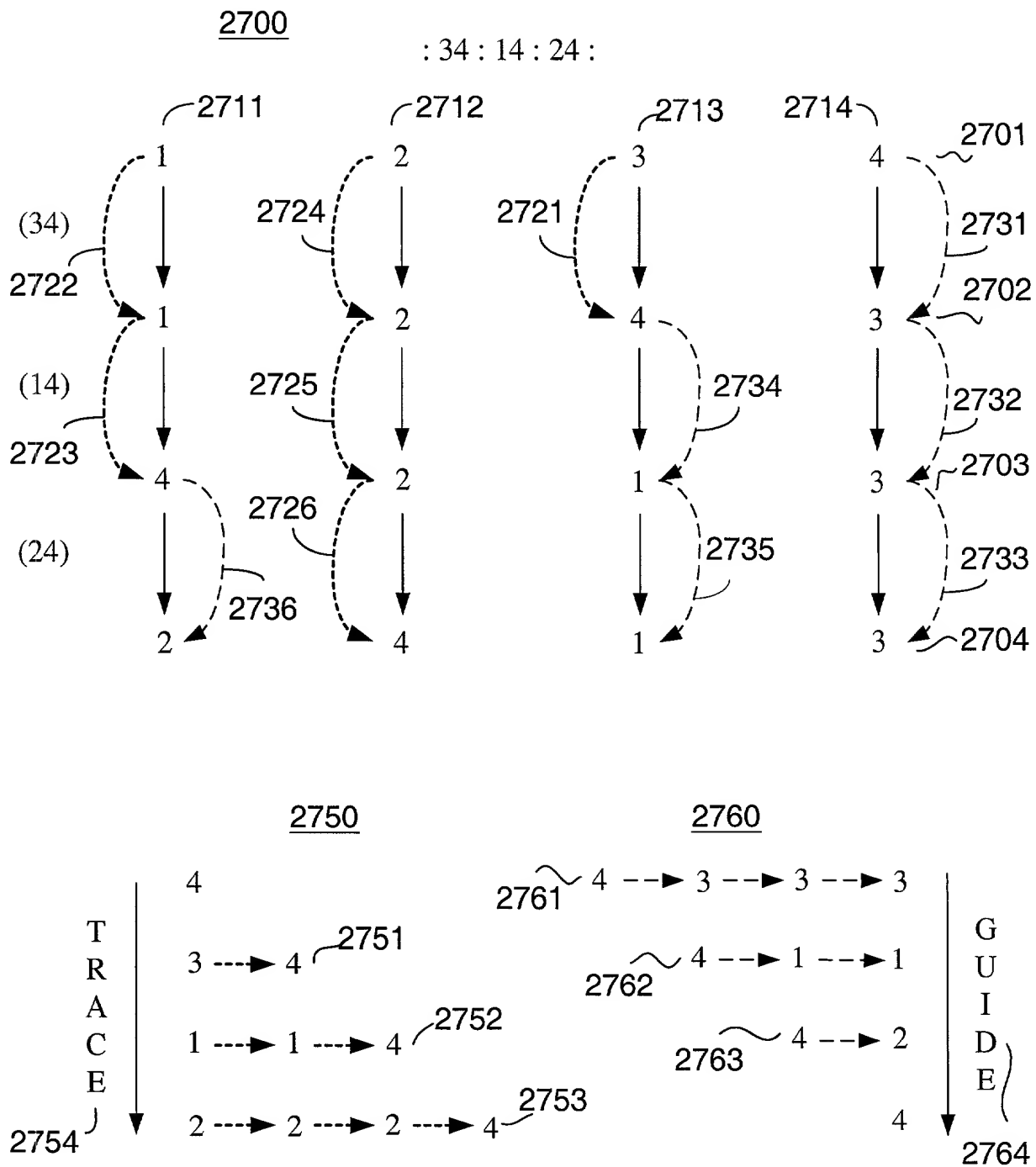


FIG. 27

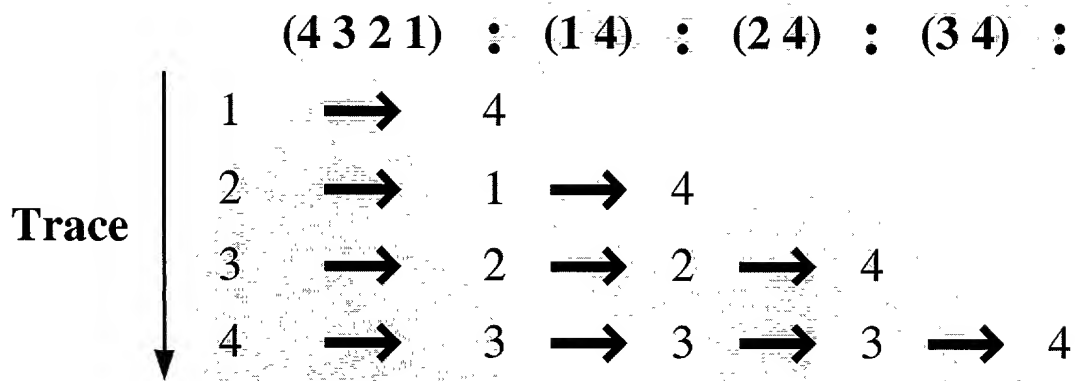


FIG. 28A

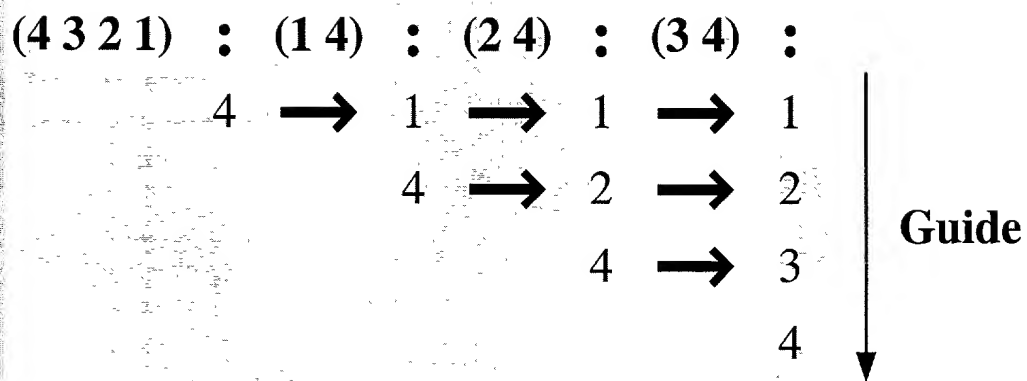


FIG. 28B

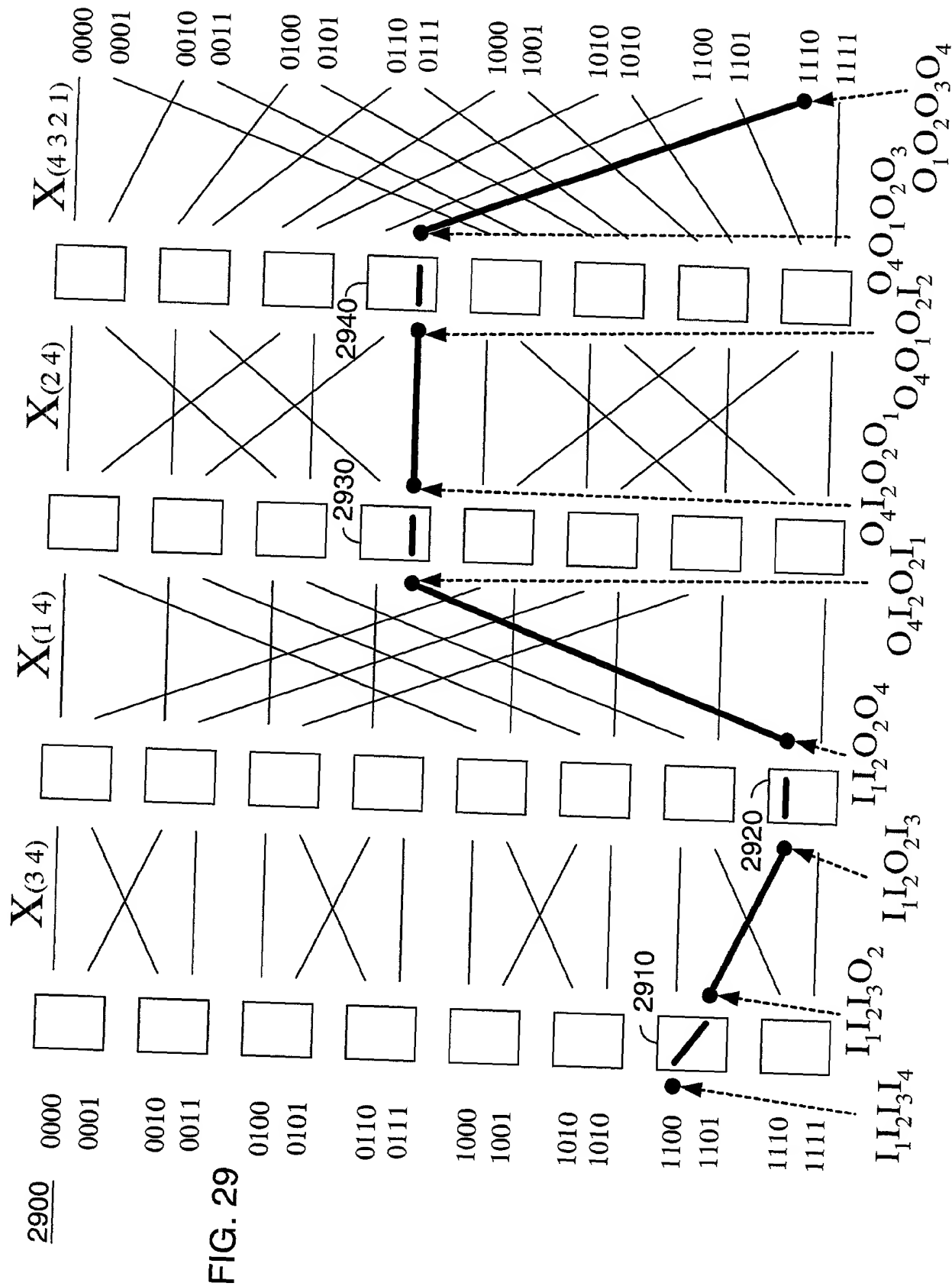


FIG. 30A

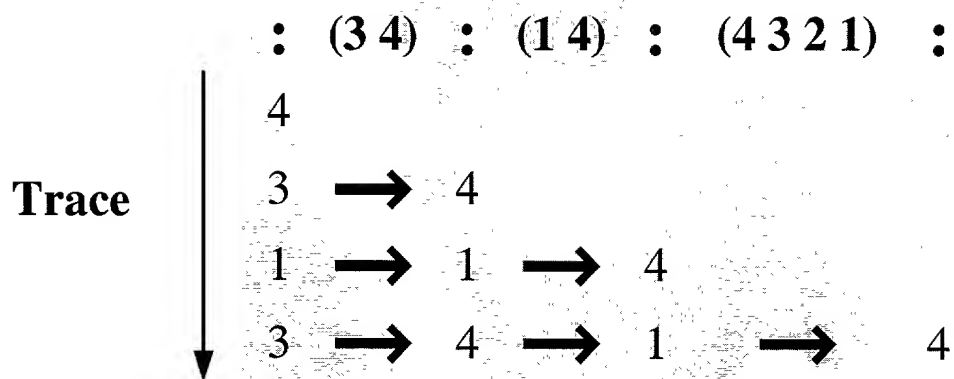
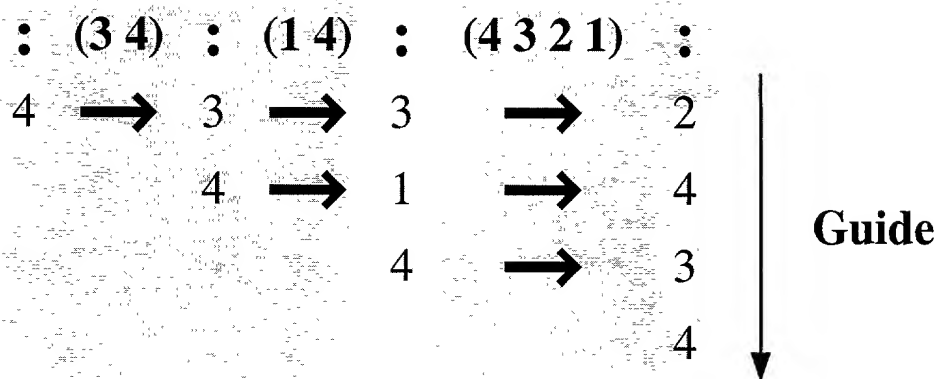


FIG. 30B



3100

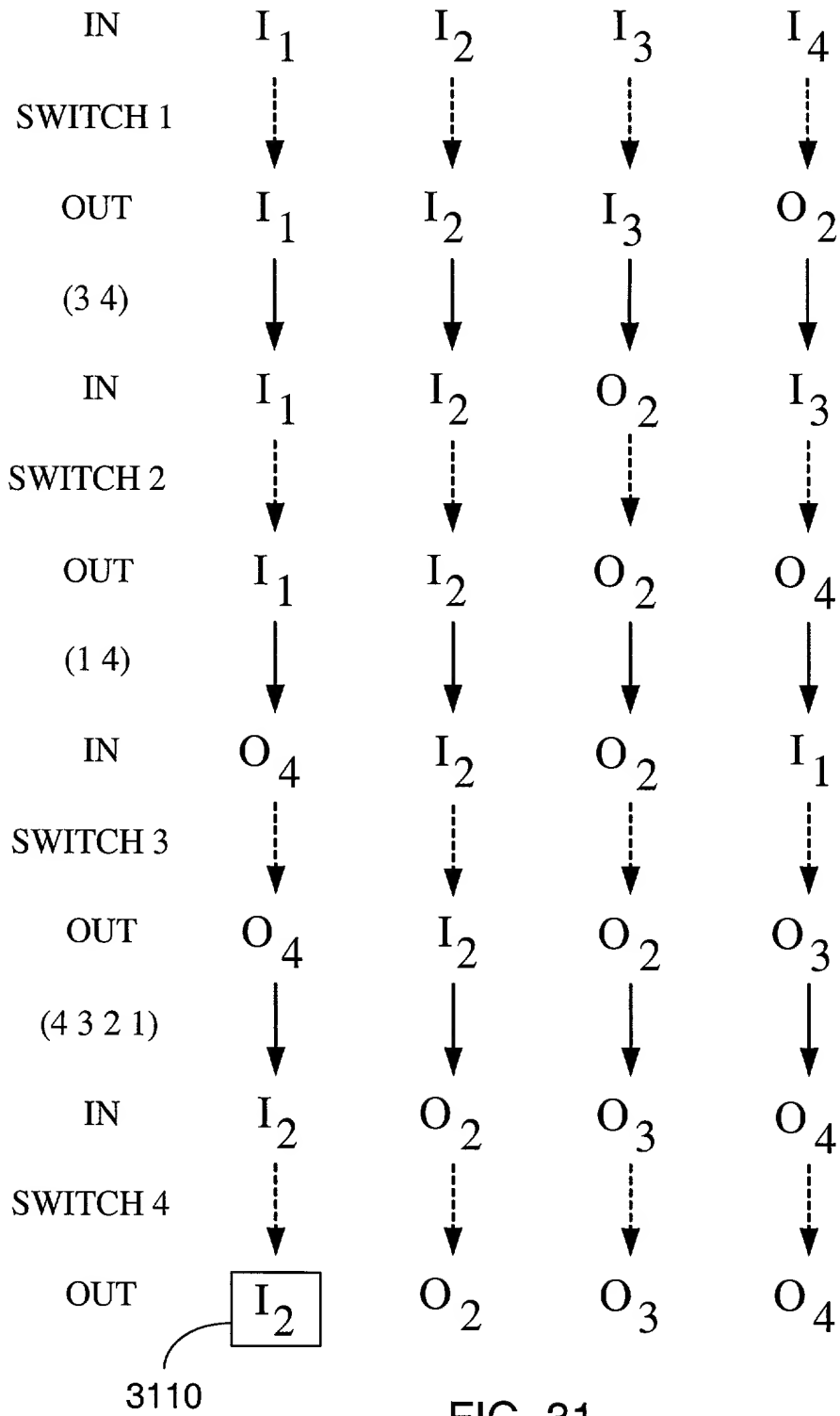


FIG. 31

FIG. 32A

FIG. 32B

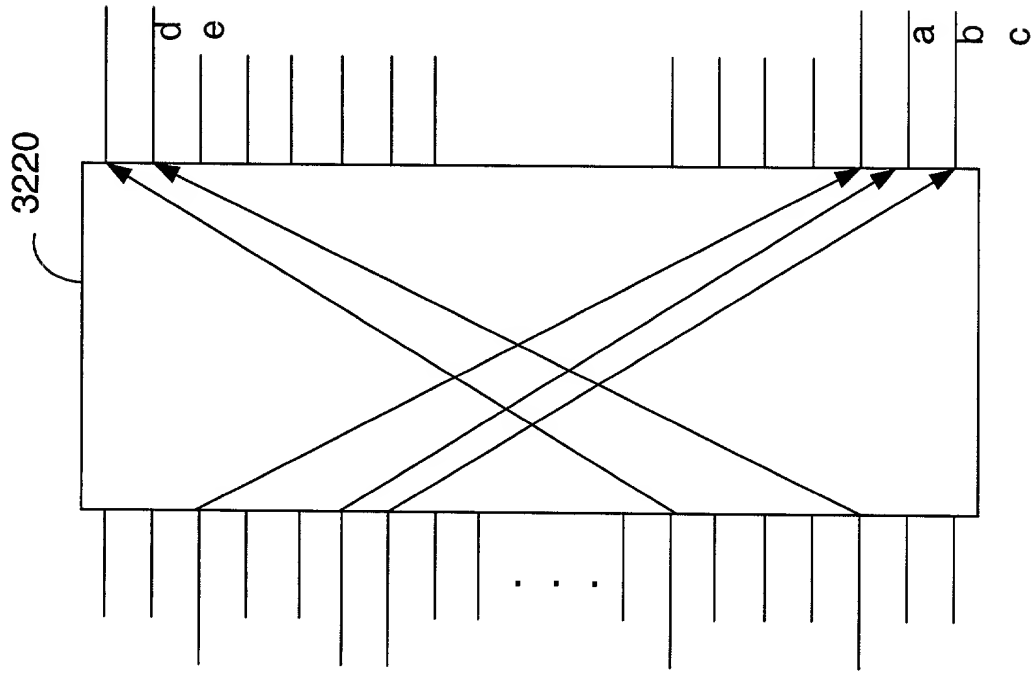


FIG. 32C

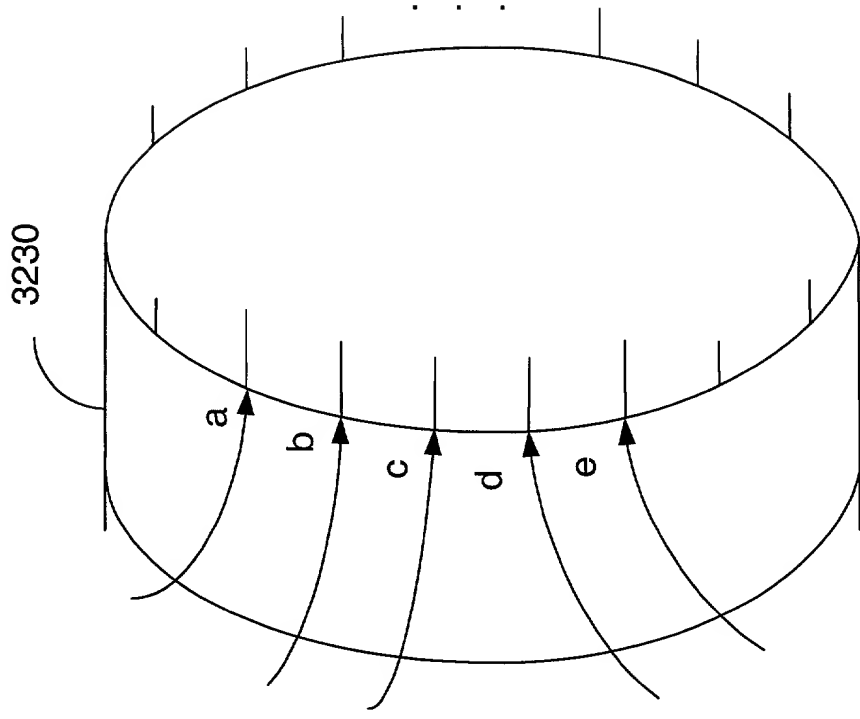


FIG. 32D

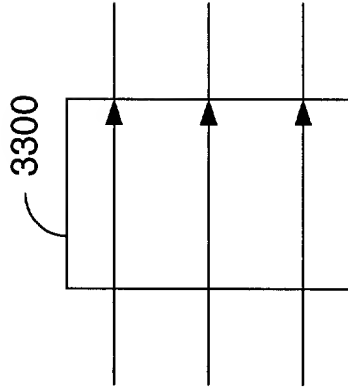


FIG. 33A

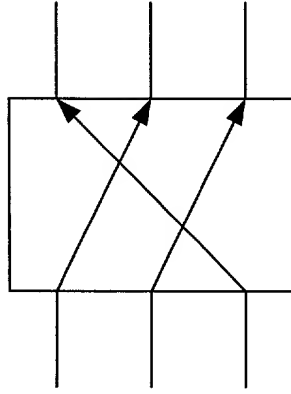


FIG. 33B

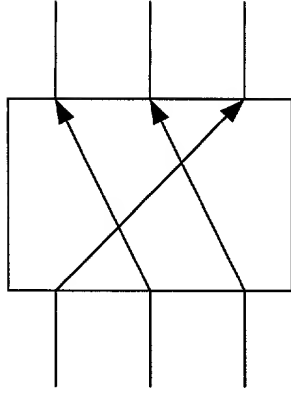


FIG. 33C

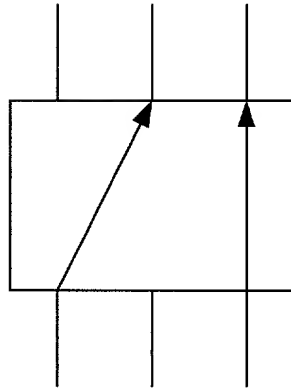


FIG. 33D

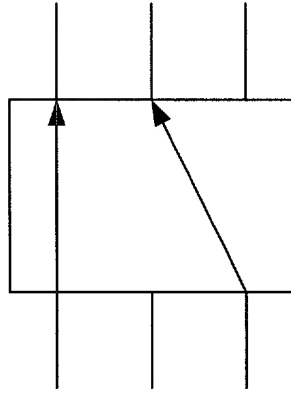


FIG. 33E

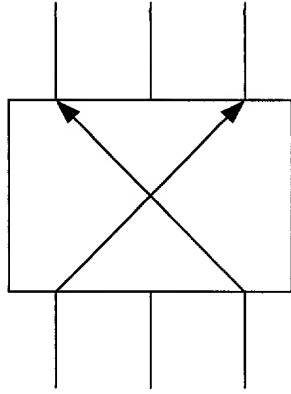


FIG. 33F

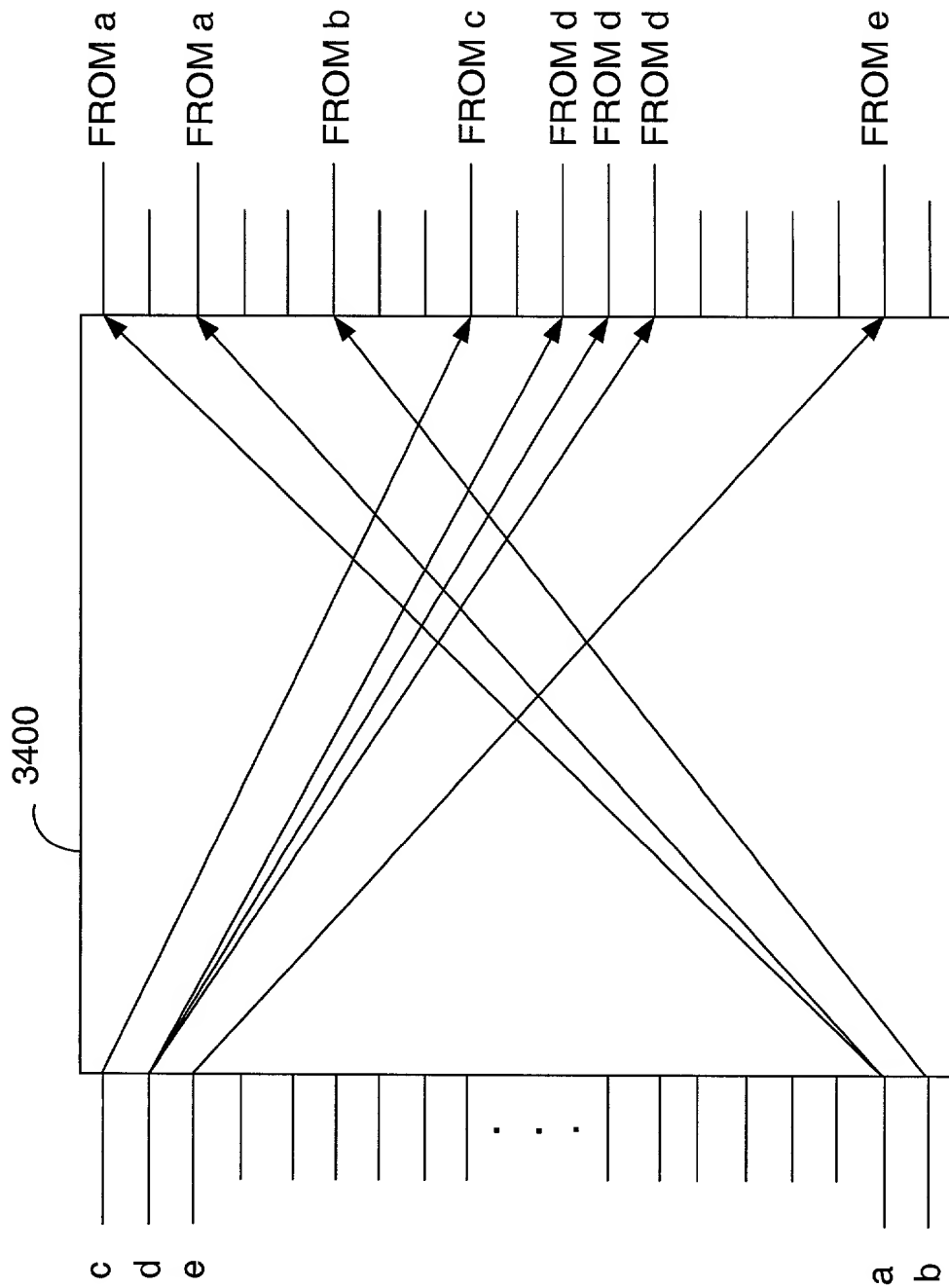


FIG. 34

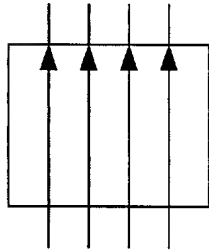


FIG. 35A

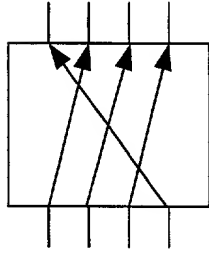


FIG. 35B

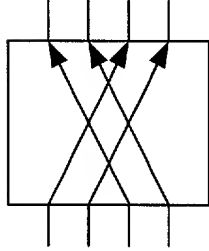


FIG. 35C

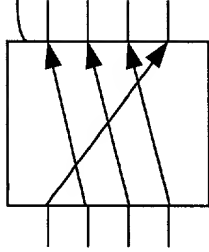


FIG. 35D

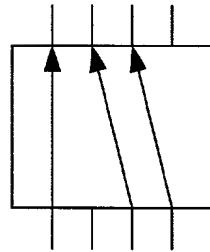


FIG. 35E

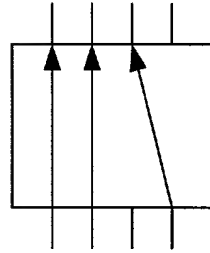


FIG. 35F

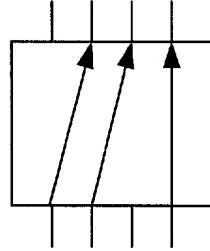


FIG. 35G

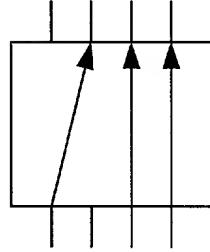


FIG. 35H

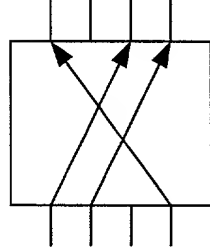


FIG. 35I

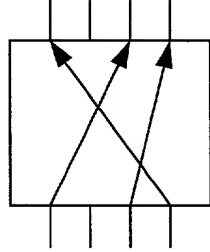


FIG. 35J

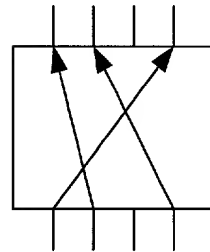


FIG. 35K

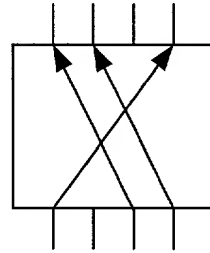


FIG. 35L

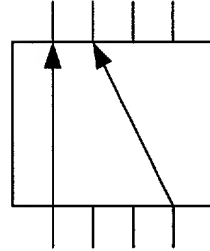


FIG. 35M

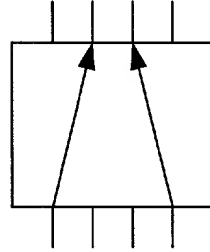


FIG. 35N

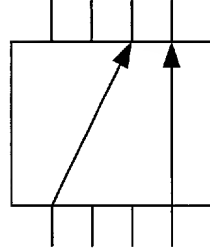


FIG. 35O

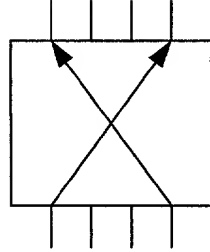


FIG. 35P

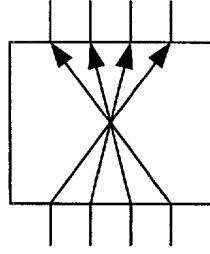


FIG. 36A

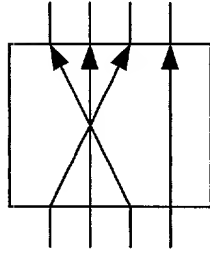


FIG. 36B

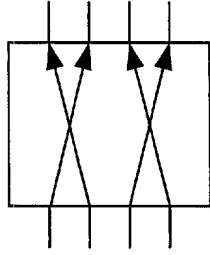


FIG. 36C

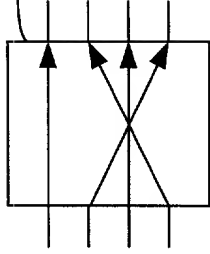


FIG. 36D

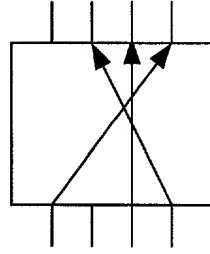


FIG. 36E

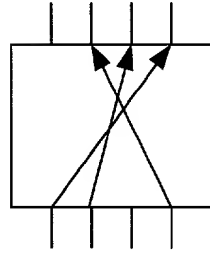


FIG. 36F

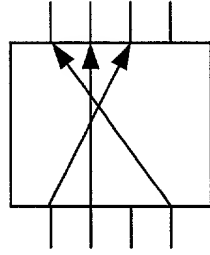


FIG. 36G

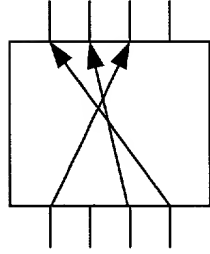


FIG. 36H

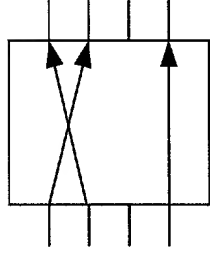


FIG. 36I

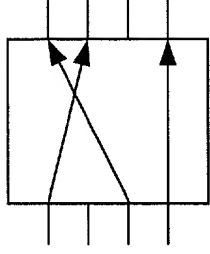


FIG. 36J

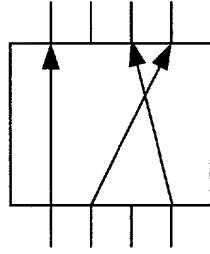


FIG. 36K

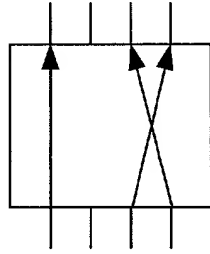


FIG. 36L

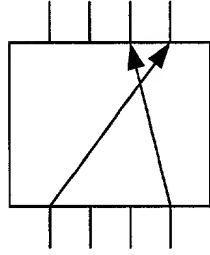


FIG. 36M

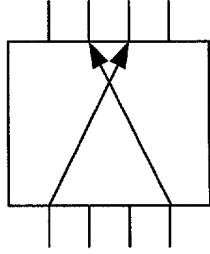


FIG. 36N

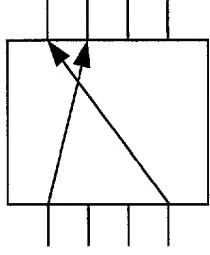


FIG. 36O

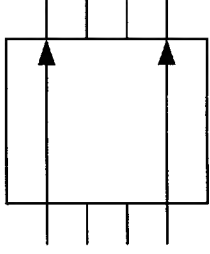


FIG. 36P

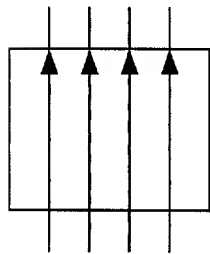


FIG. 37A

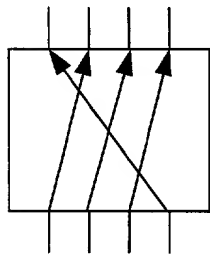


FIG. 37B

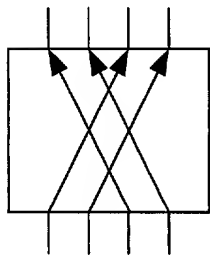


FIG. 37C

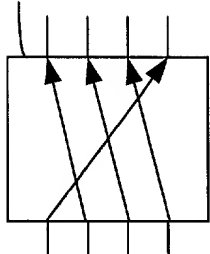


FIG. 37D

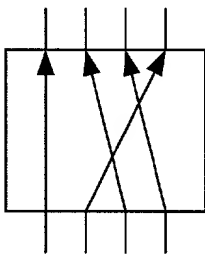


FIG. 37E

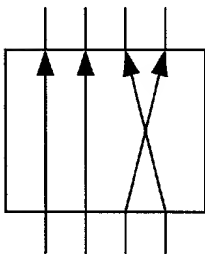


FIG. 37F

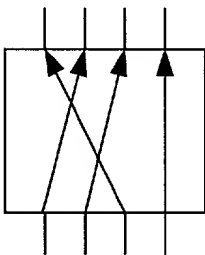


FIG. 37G

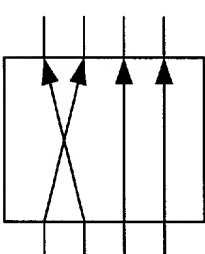


FIG. 37H

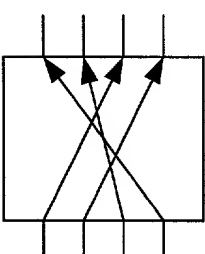


FIG. 37I

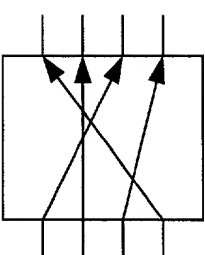


FIG. 37J

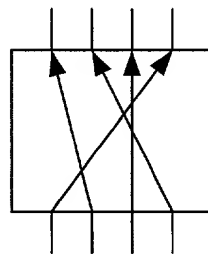


FIG. 37K

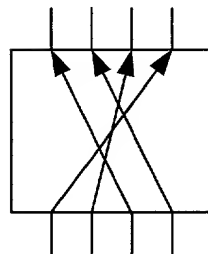


FIG. 37L

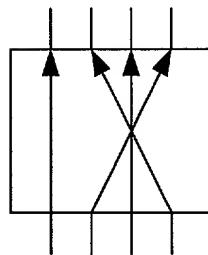


FIG. 37M

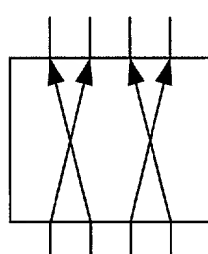


FIG. 37N

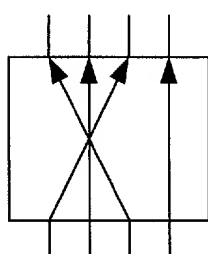


FIG. 37O

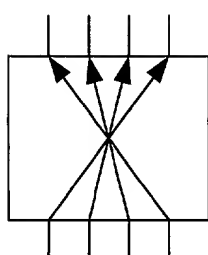


FIG. 37P

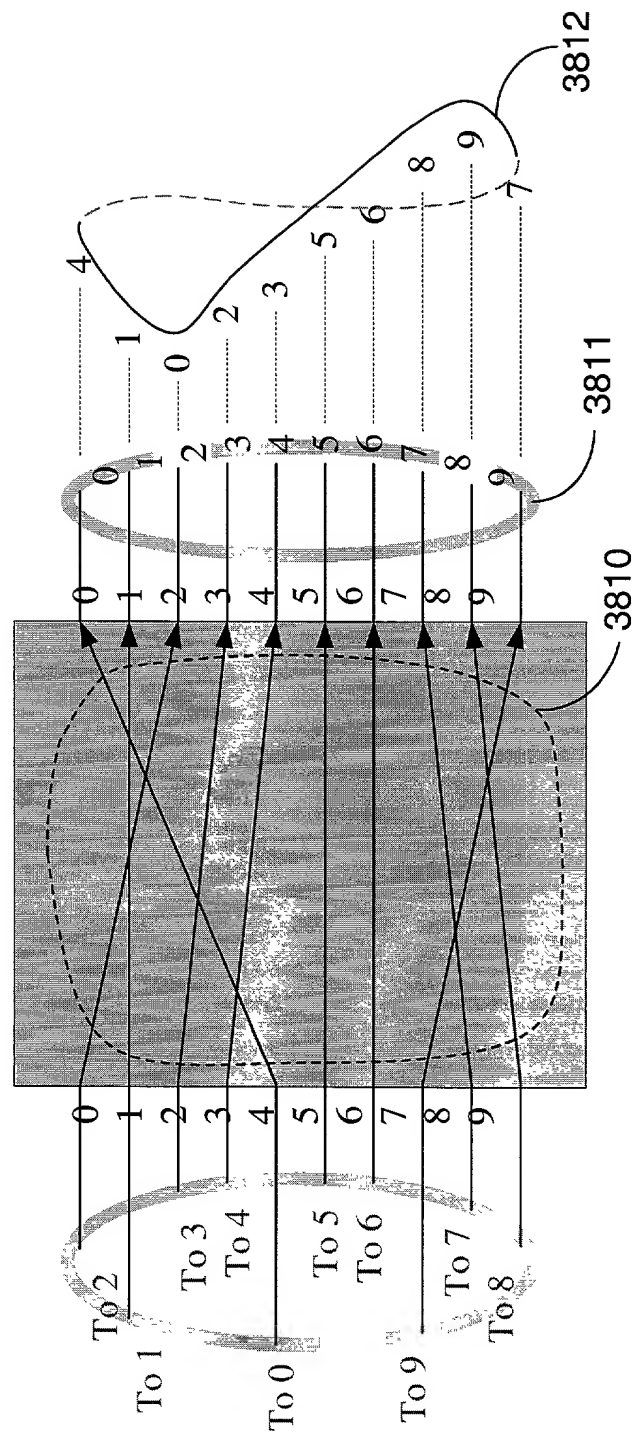


FIG. 38A

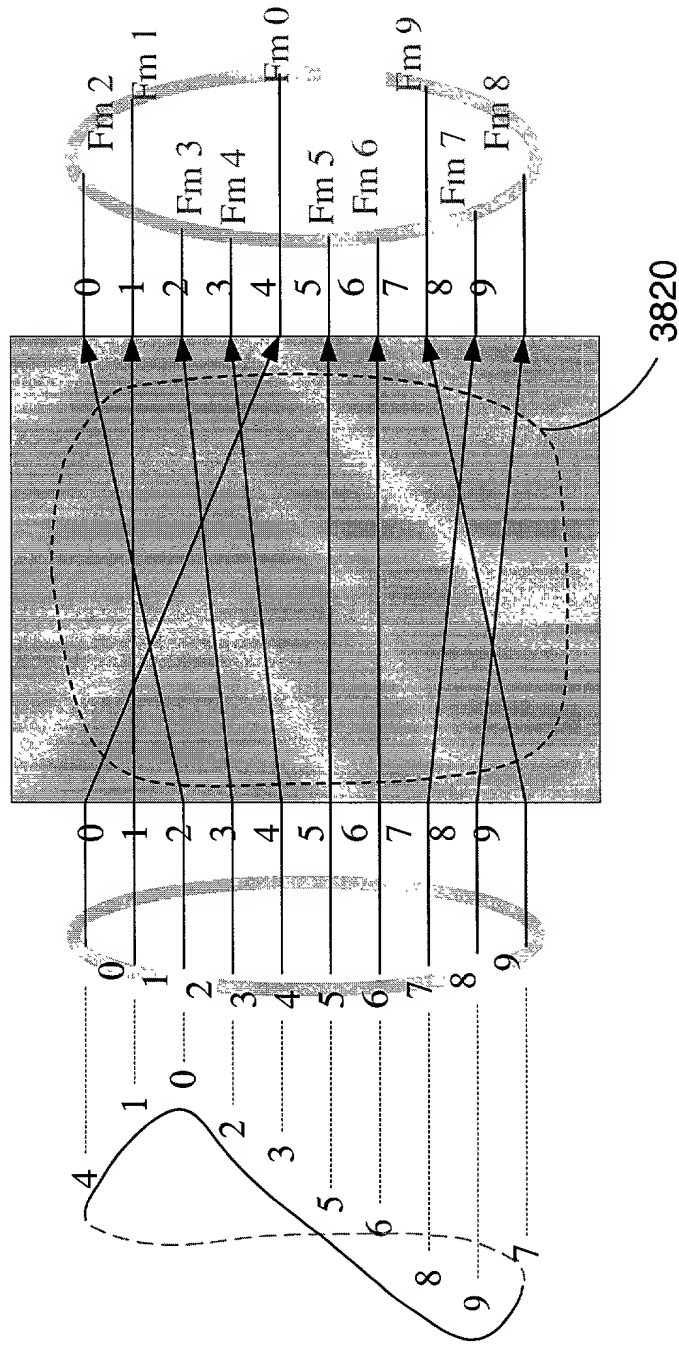


FIG.38B

3900

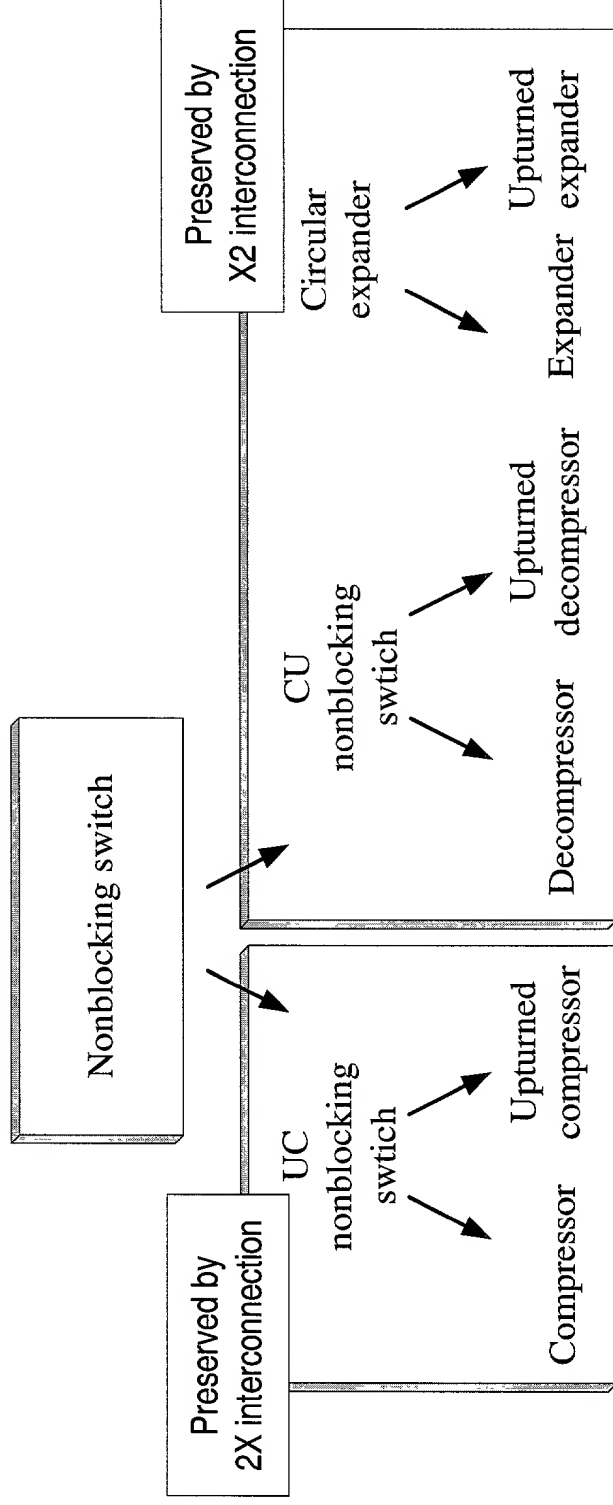


FIG. 39

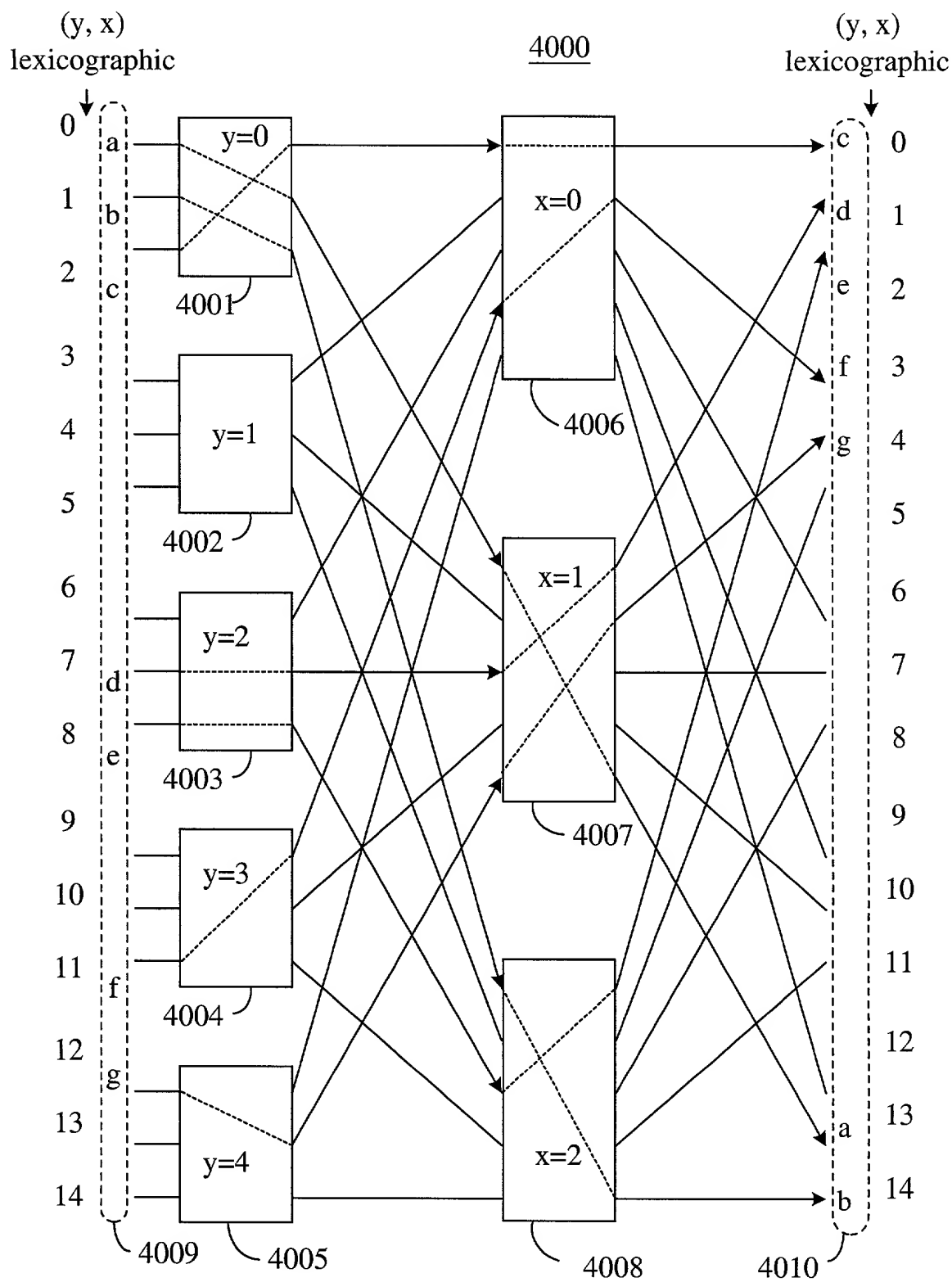
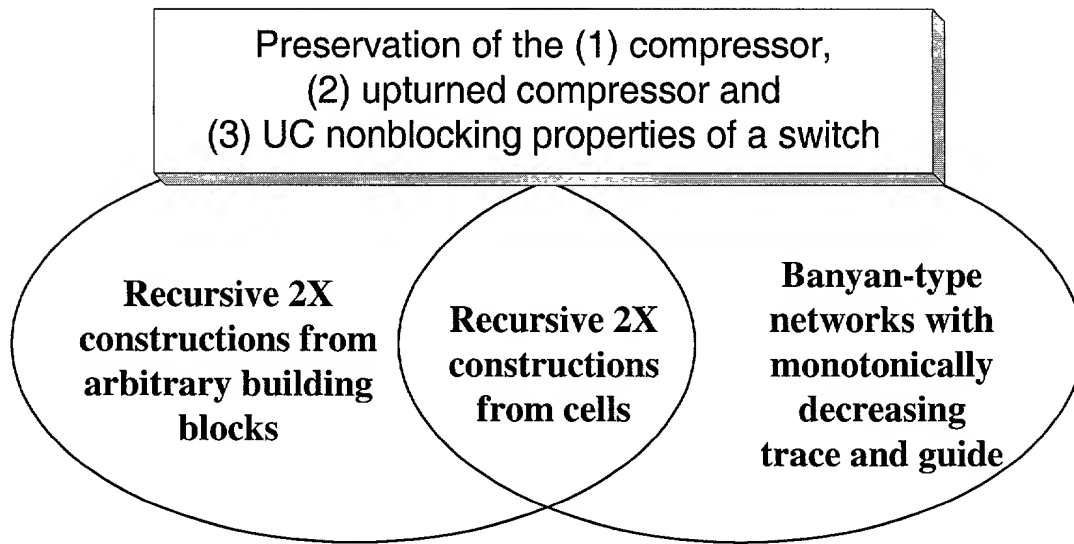


FIG. 40

4100



4110

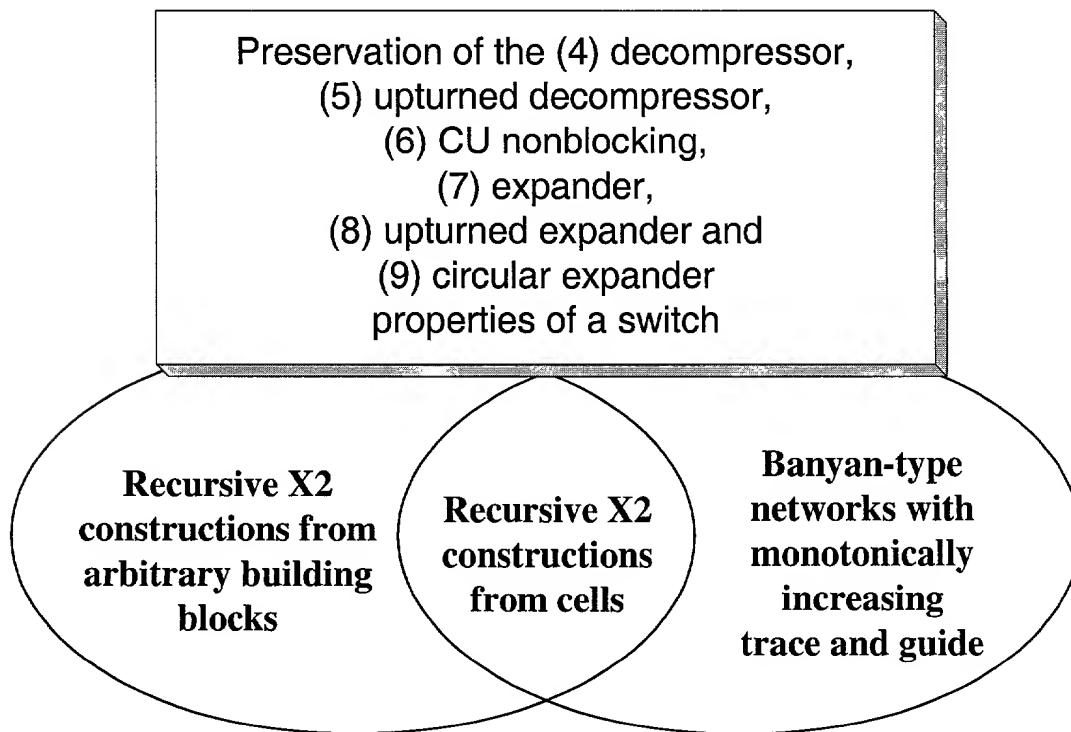
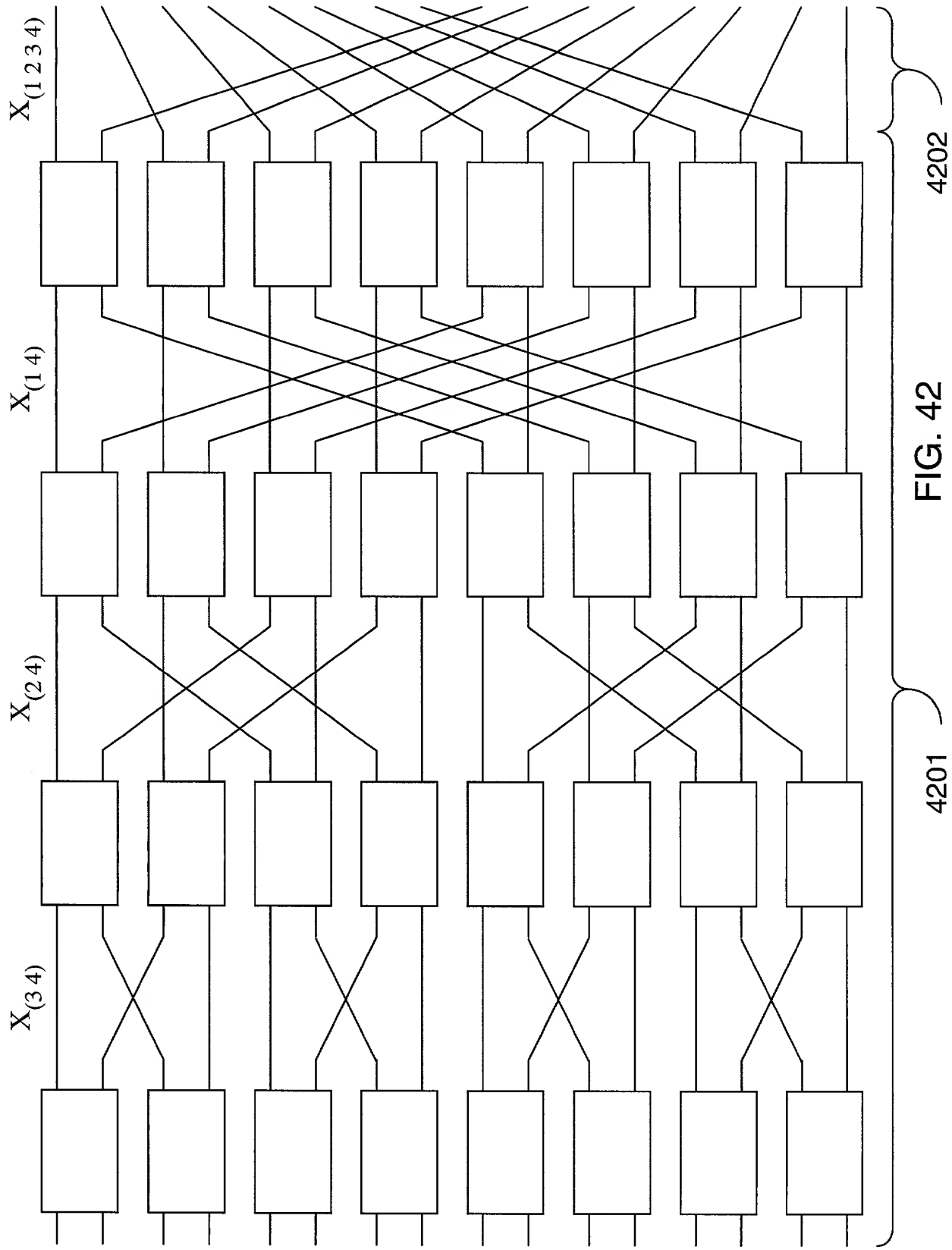
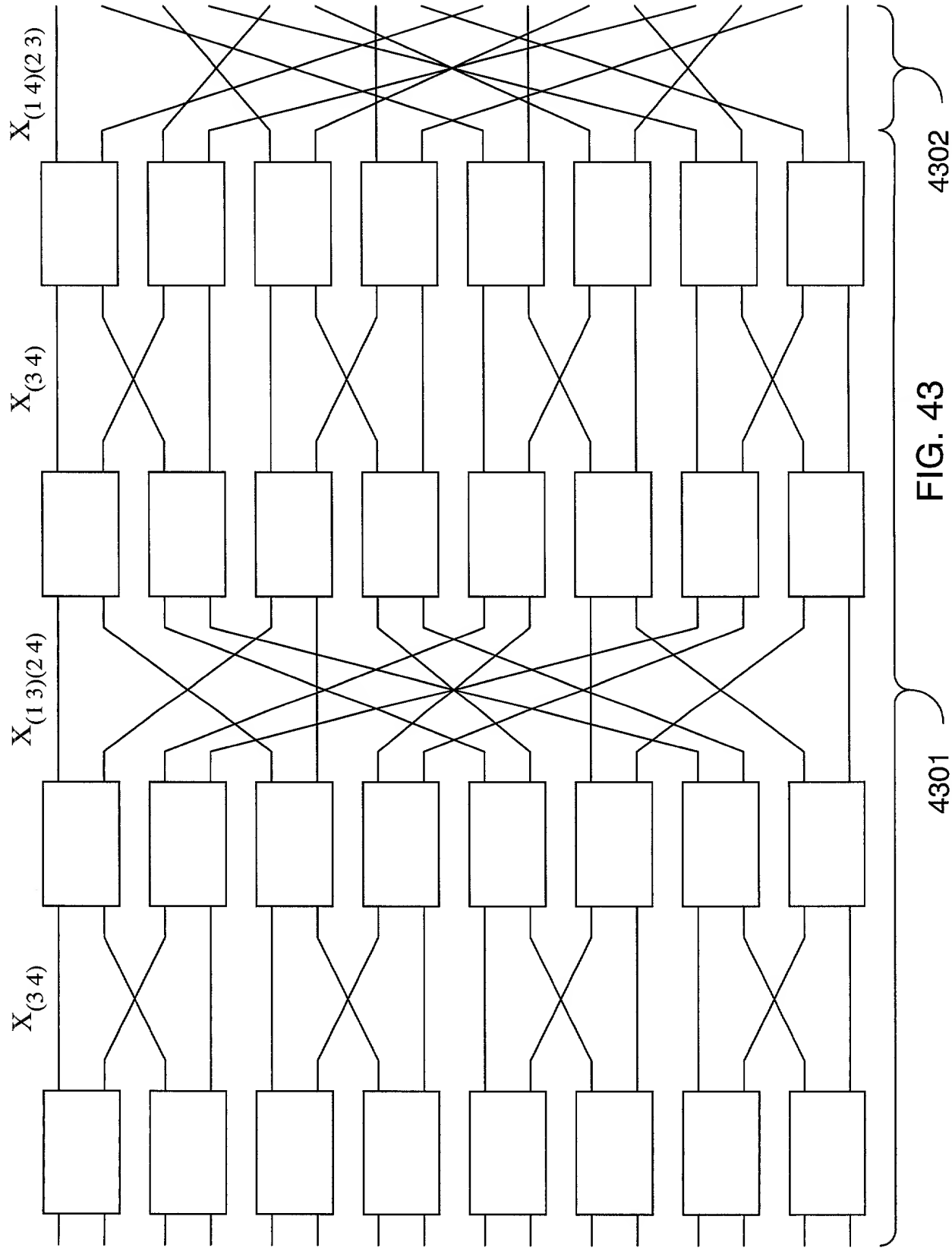


FIG. 41





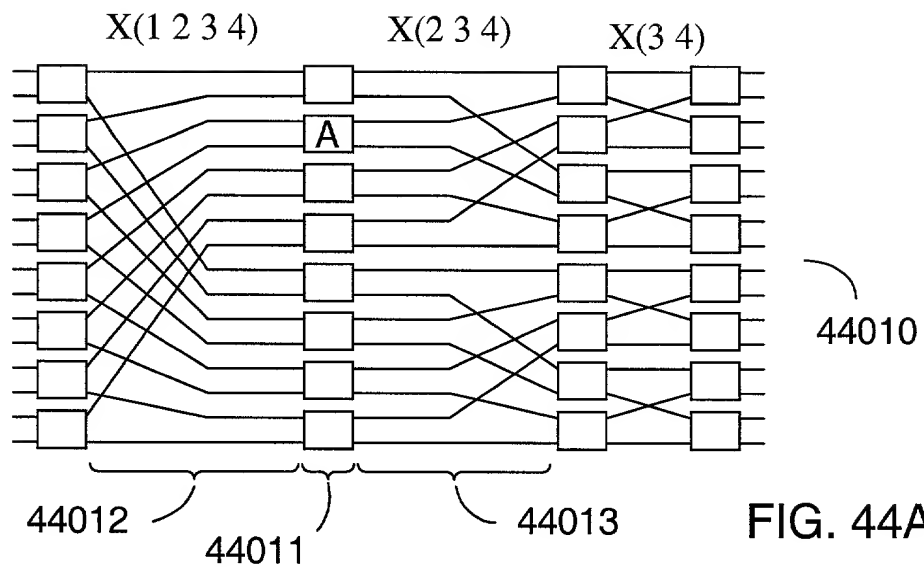


FIG. 44A

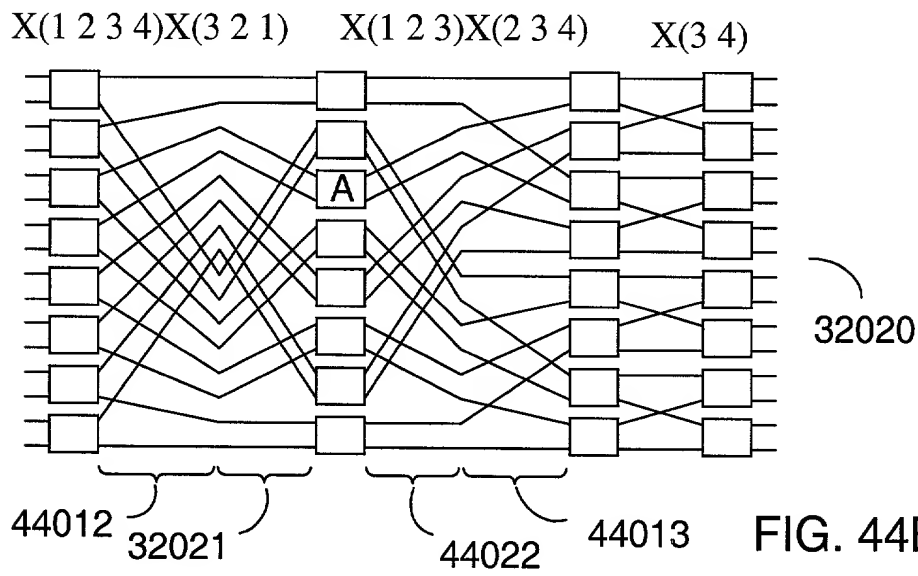


FIG. 44B

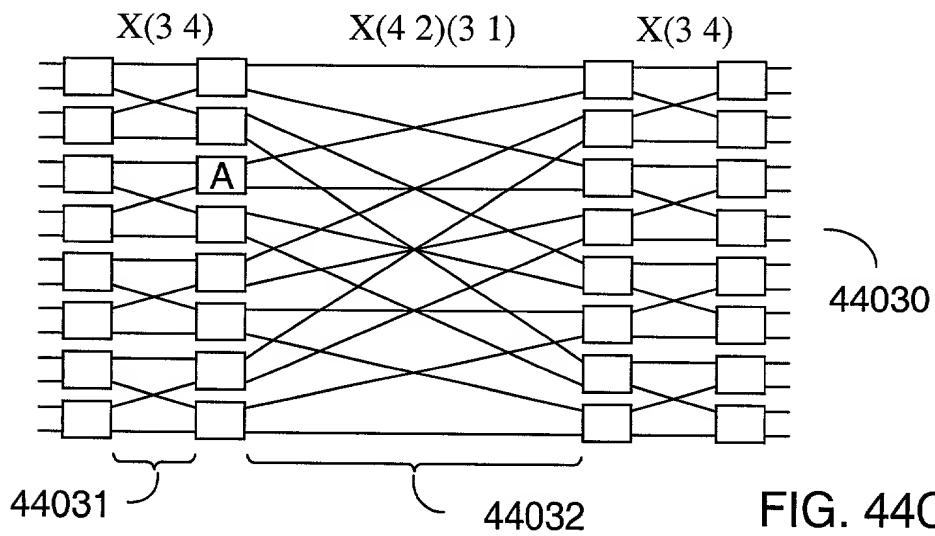


FIG. 44C

4500

Equivalence requiring the
match of I/O exchanges
($\langle == \rangle$ common trace and guide
among the networks)

Equivalence requiring the match of input exchange only ($\langle \implies \rangle$ common trace among the networks)

Equivalence requiring the match of output exchange only ($\langle == \rangle$ common guide among the networks)

**Equivalence without requiring
the match of I/O exchanges
(unconditional)**

Equivalence
among
banyan-type
networks
in stronger
sense

FIG. 45

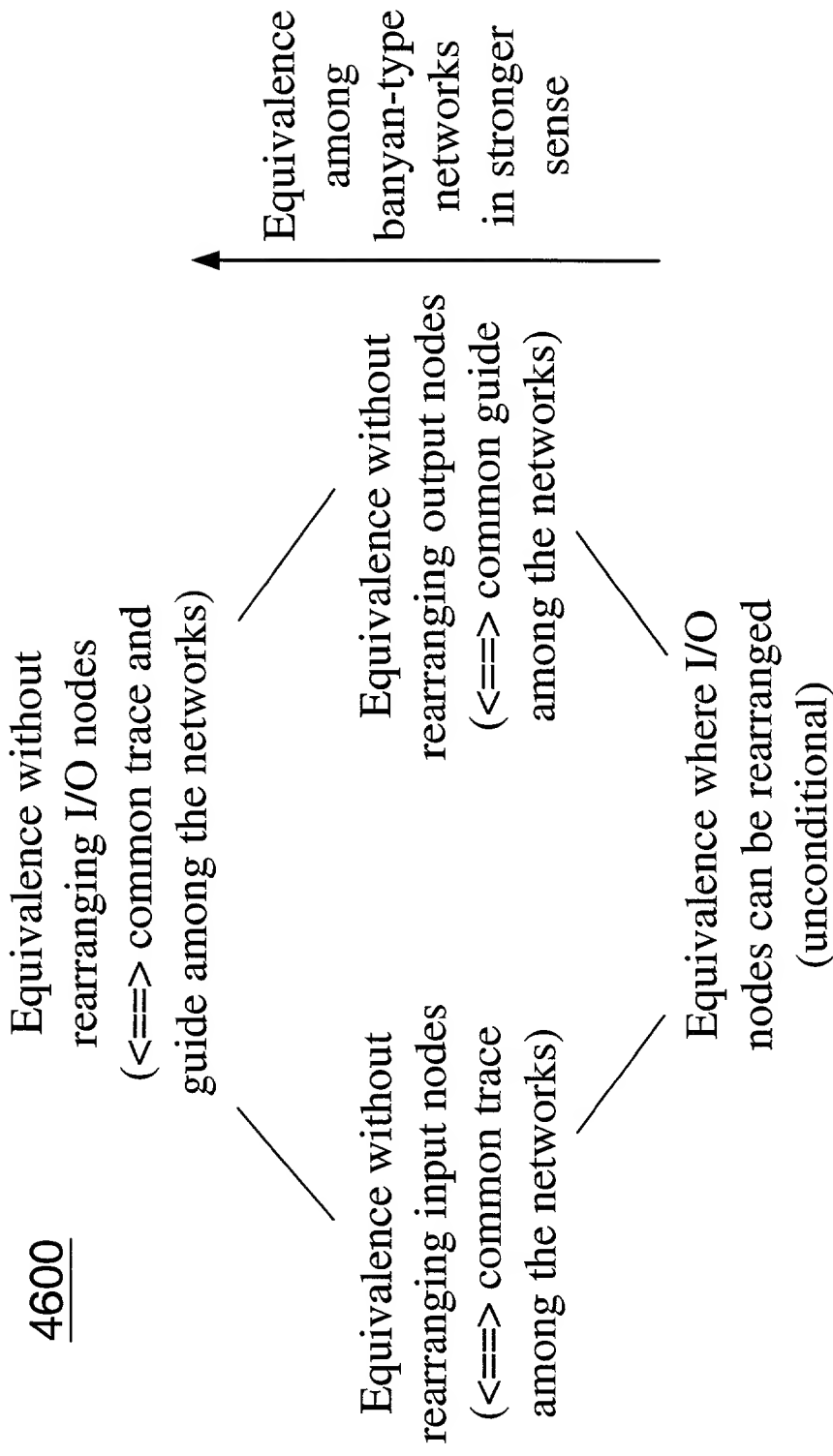


FIG. 46

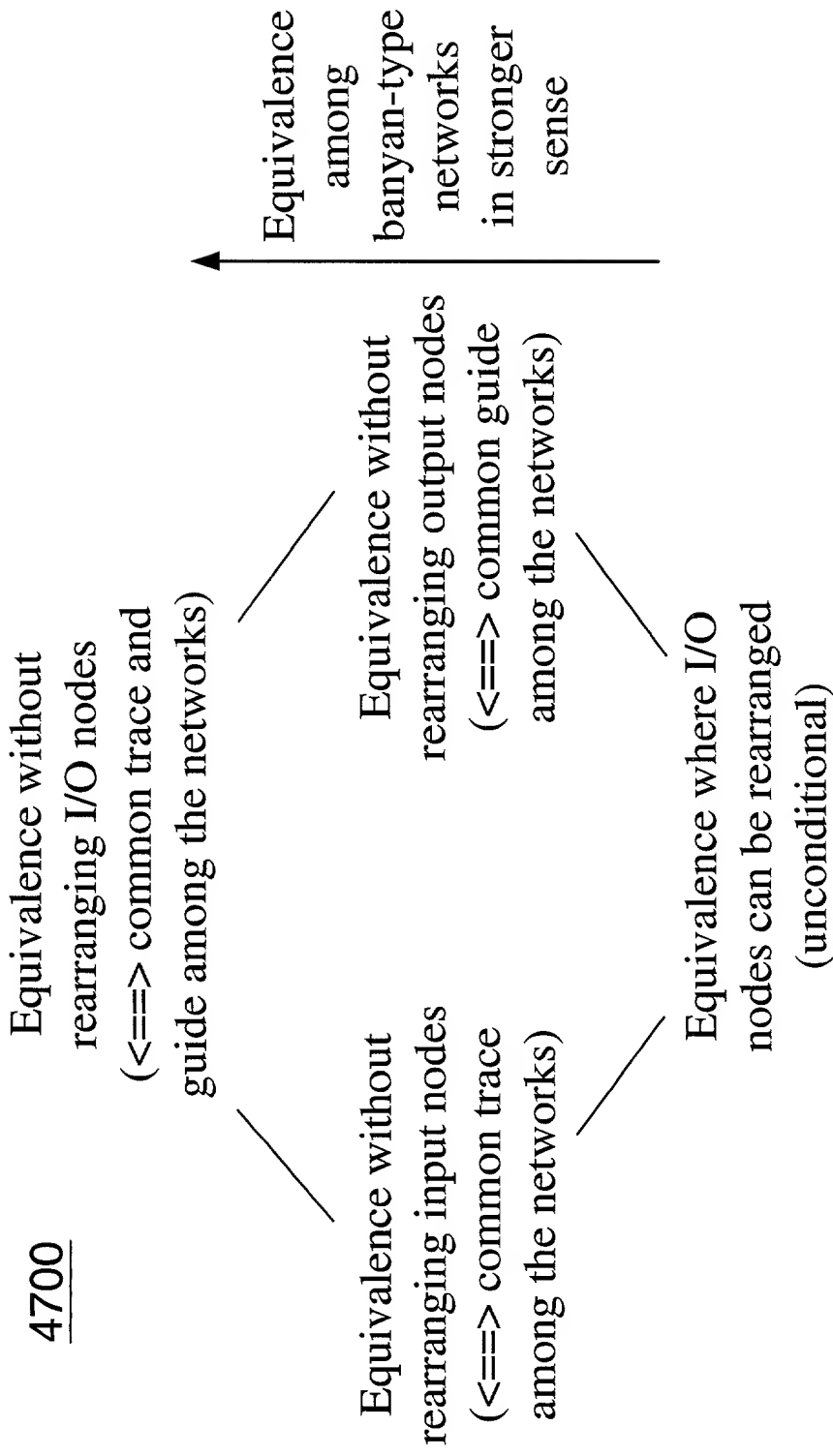


FIG. 47

4800

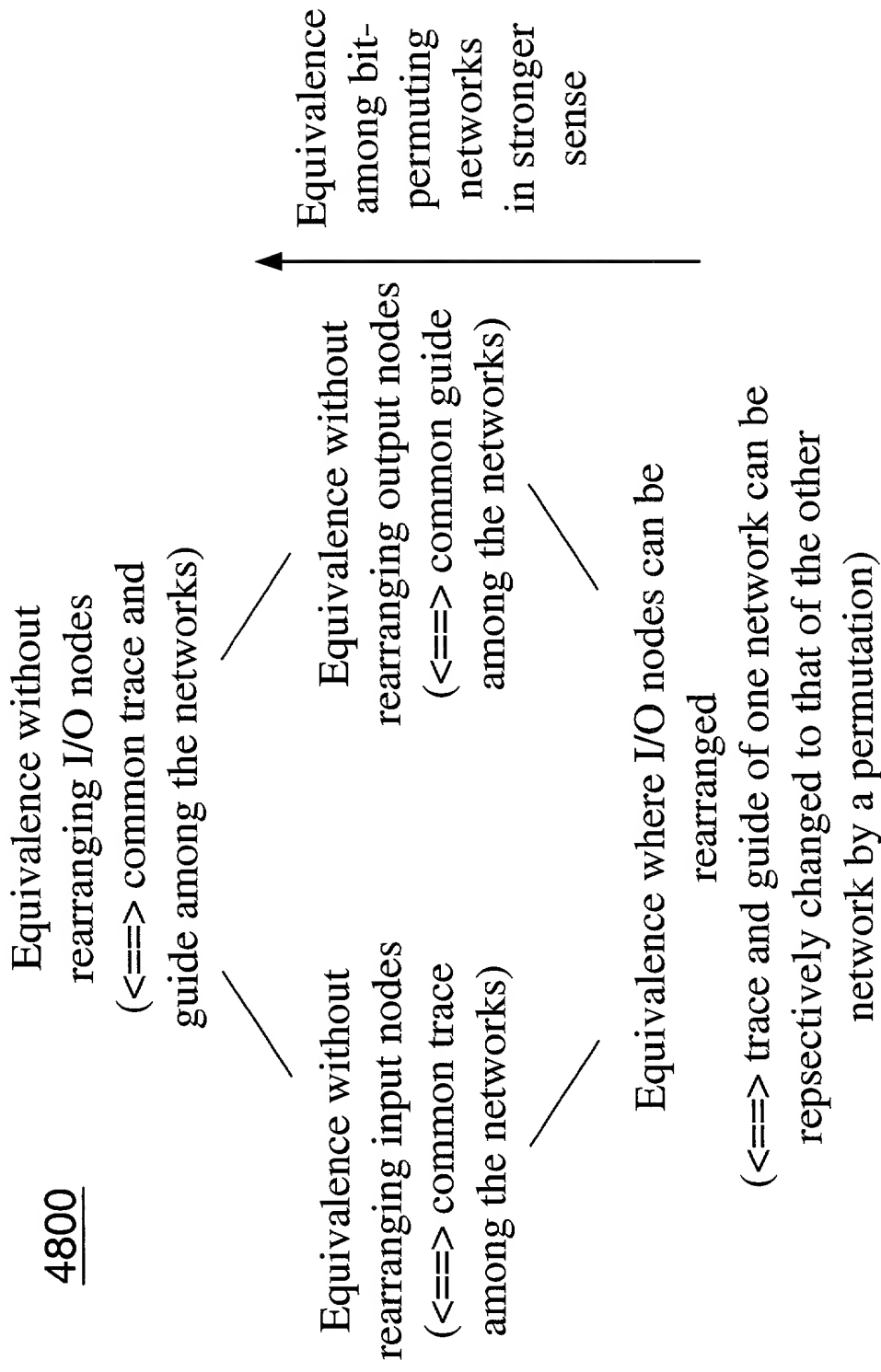


FIG. 48

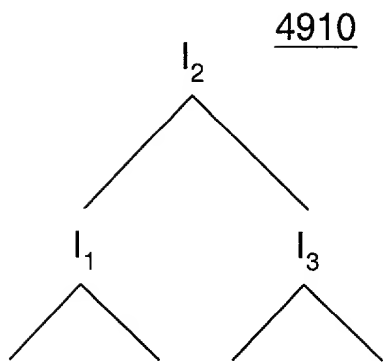


FIG. 49A

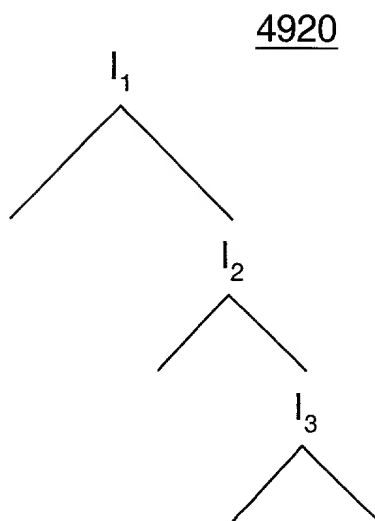


FIG. 49B

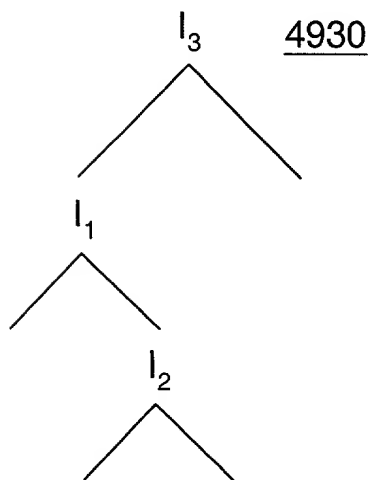


FIG. 49C

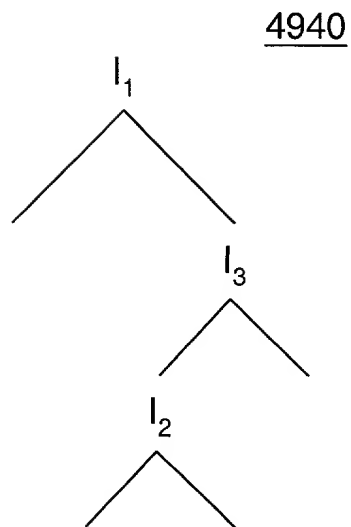


FIG. 49D

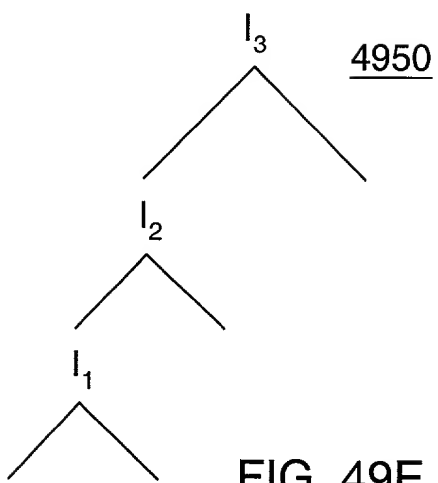


FIG. 49E

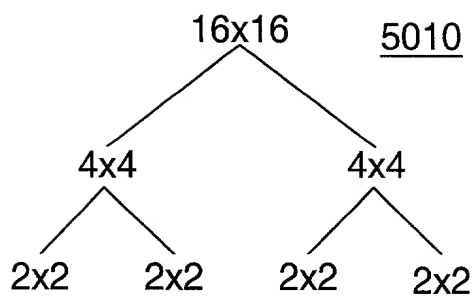


FIG. 50A

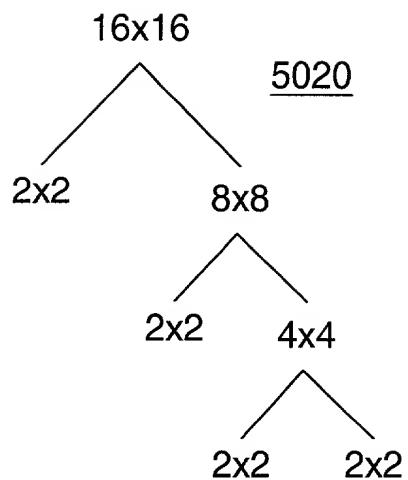


FIG. 50B

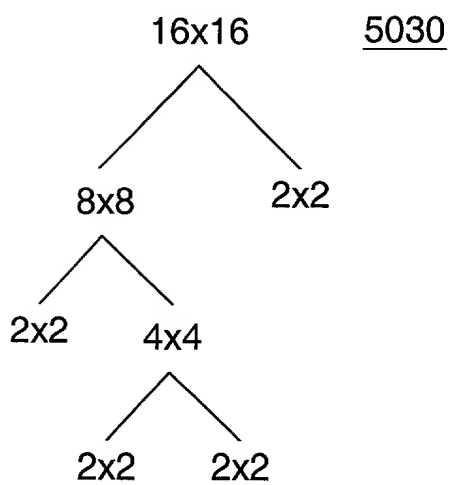


FIG. 50C

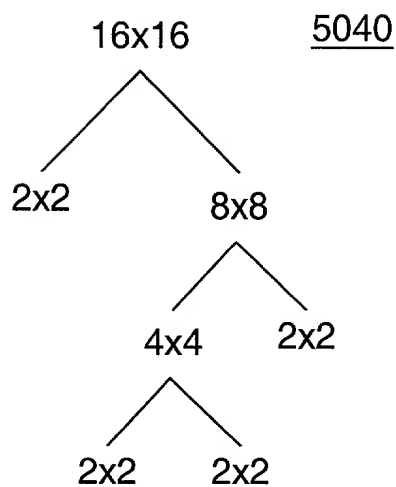


FIG. 50D

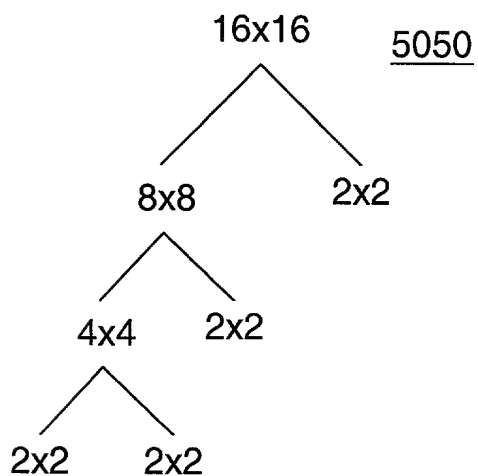


FIG. 50E

5100

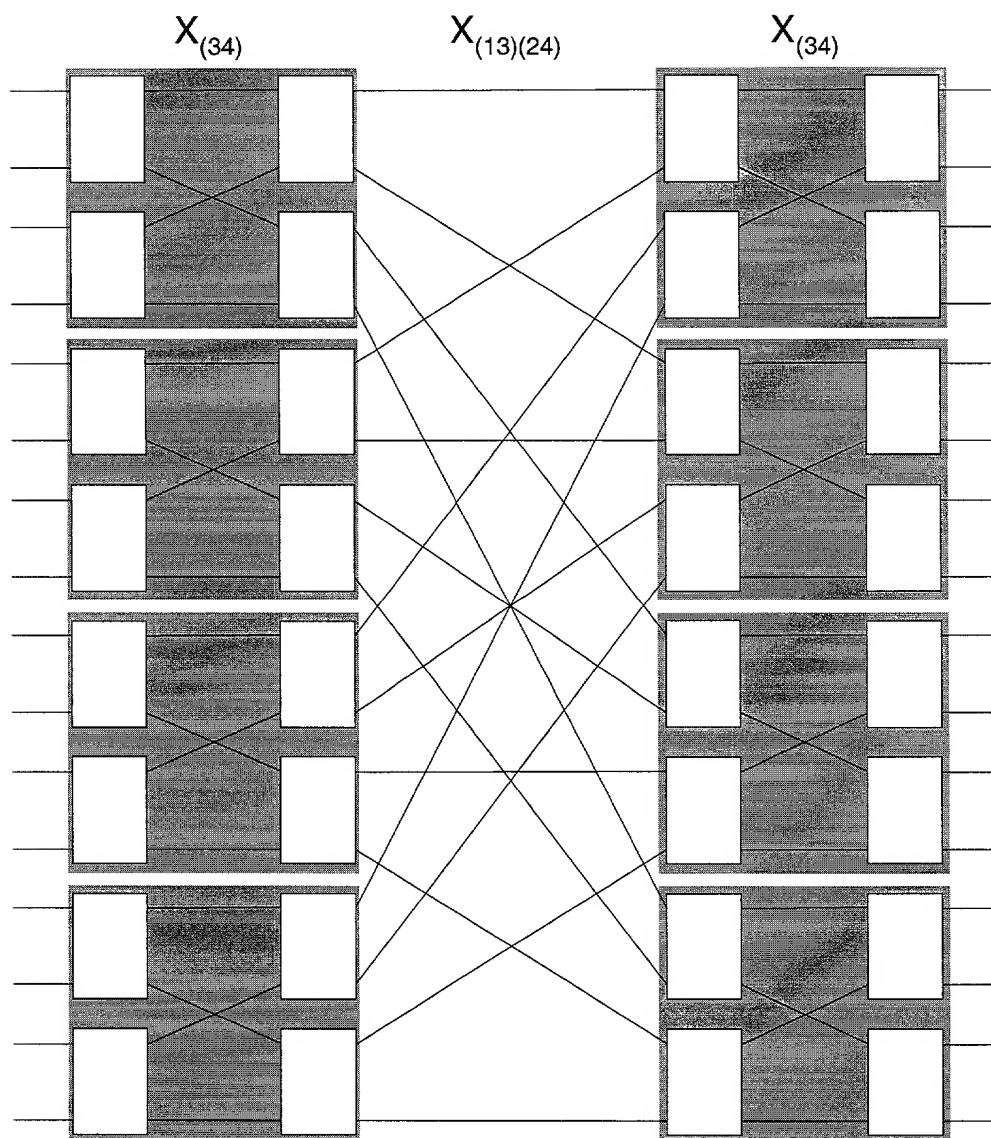


FIG. 51

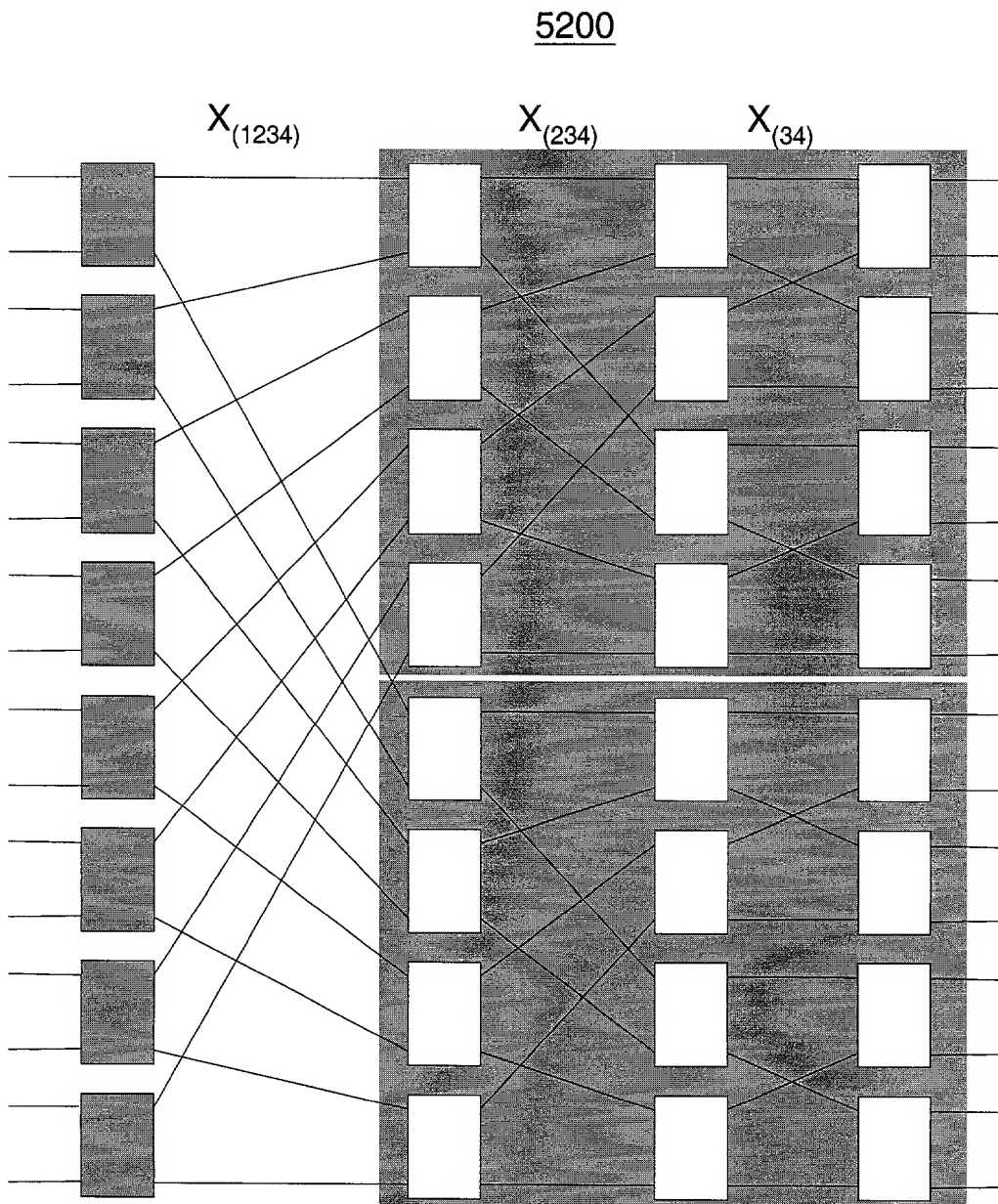
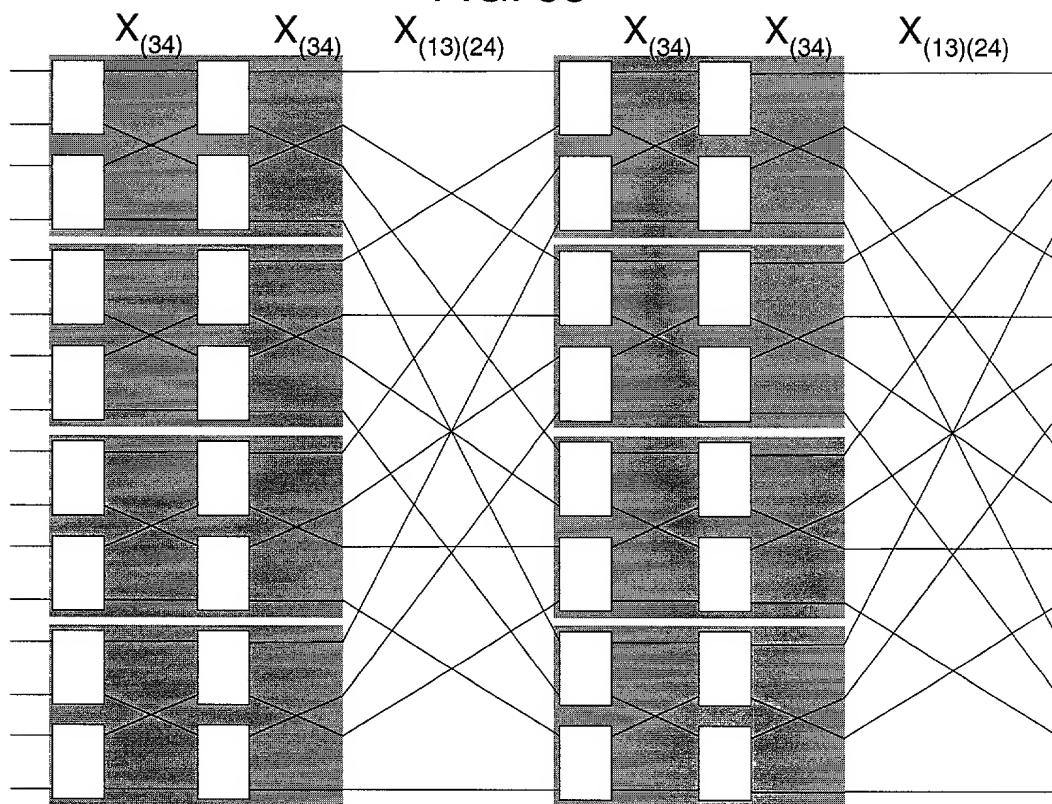
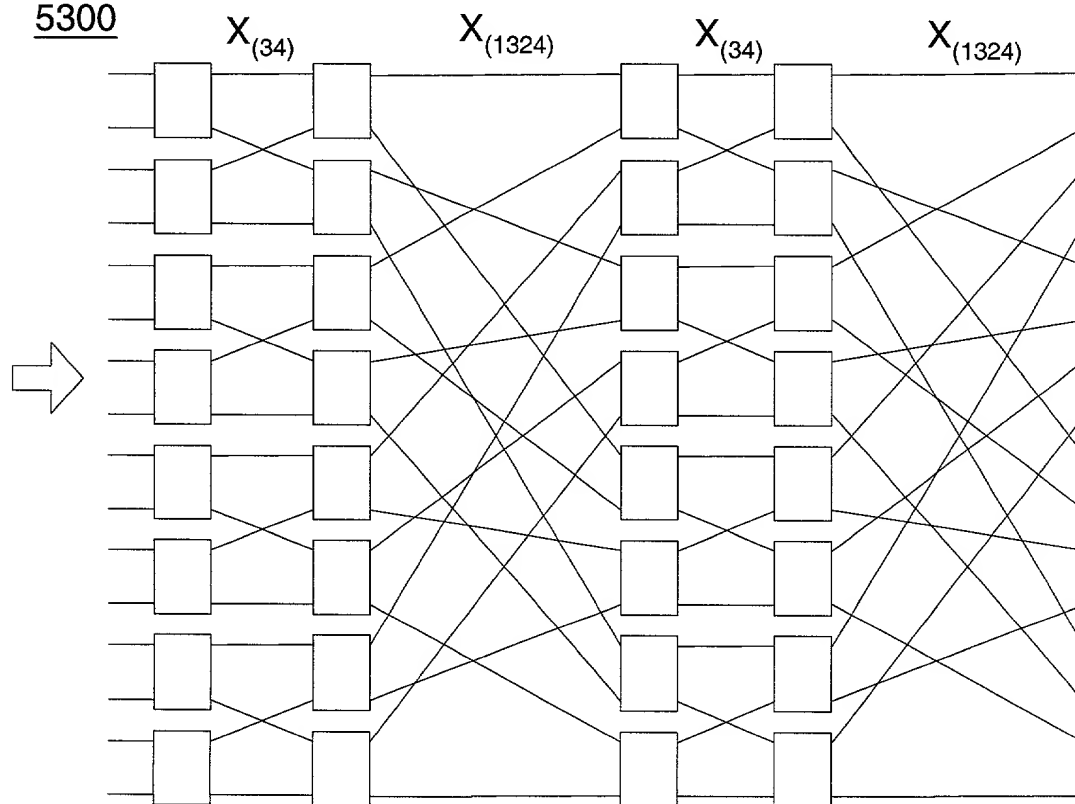


FIG. 52

FIG. 53



5300



5400

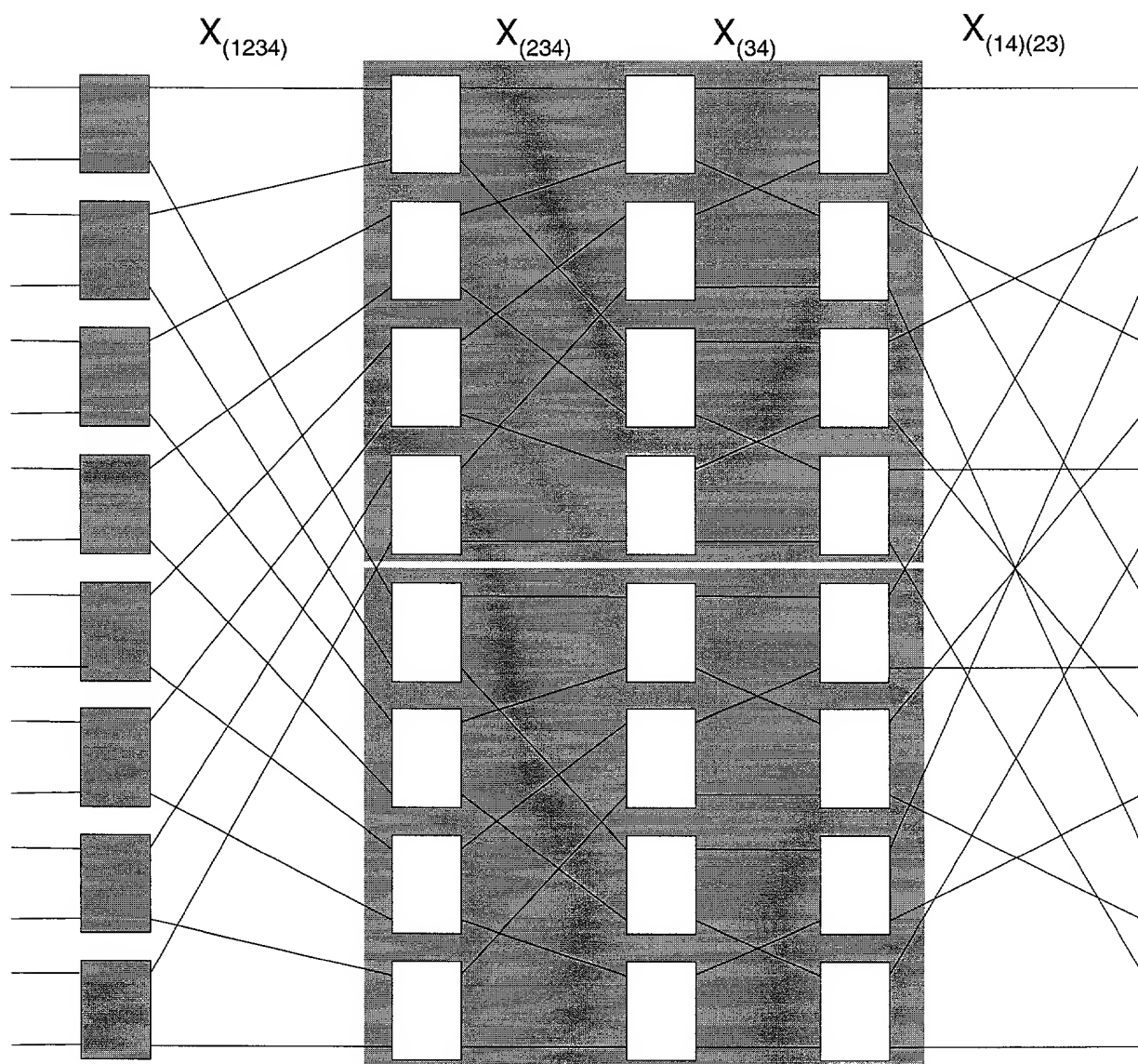


FIG. 54

5500

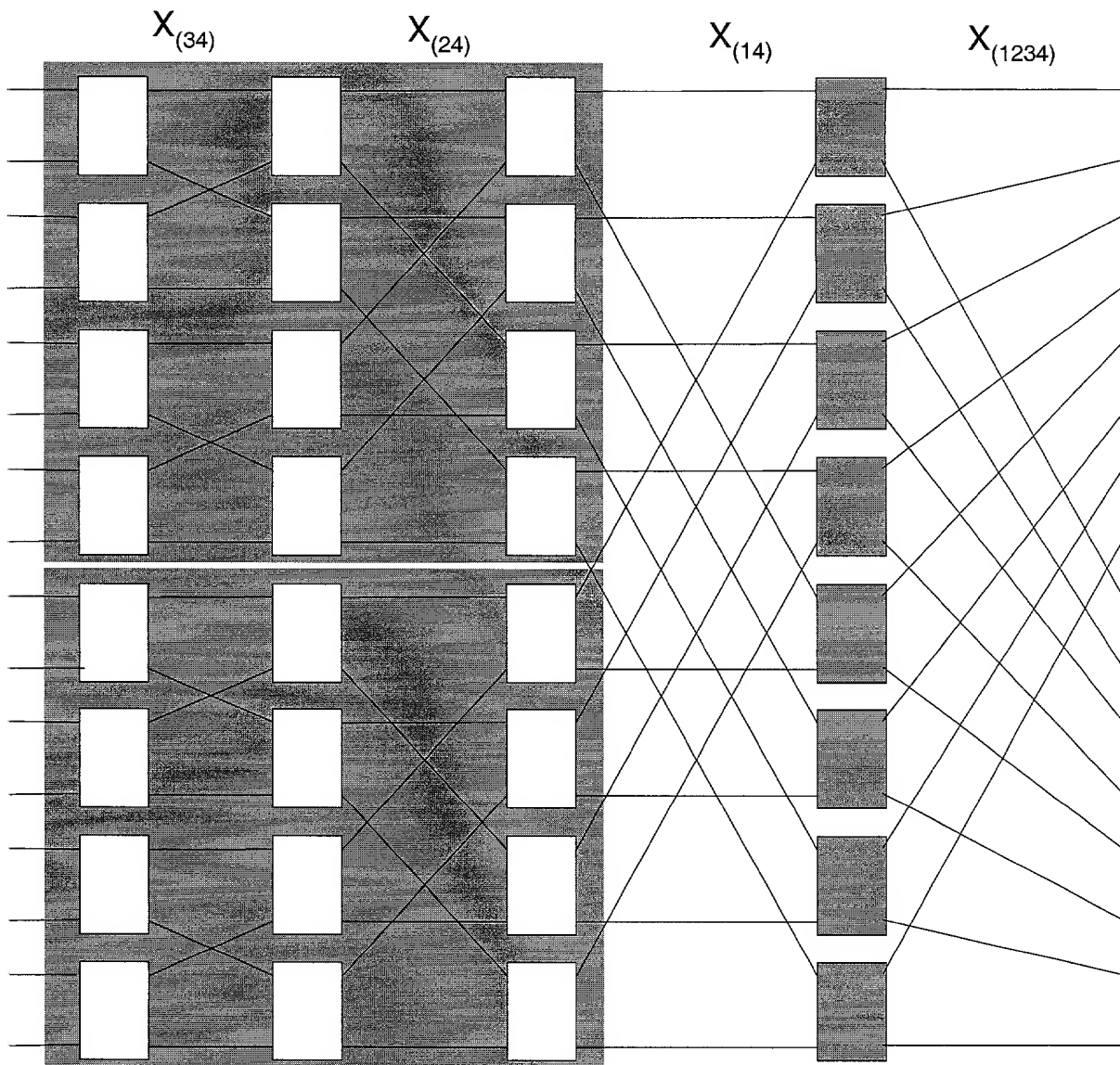


FIG. 55

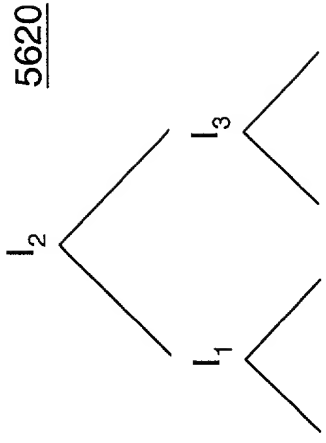
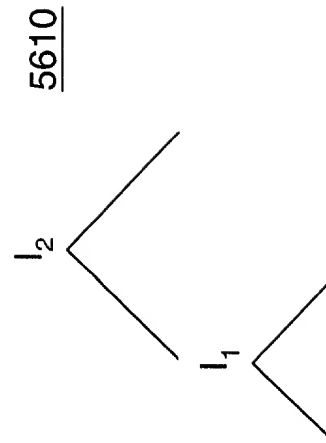


FIG. 56A

FIG. 56B

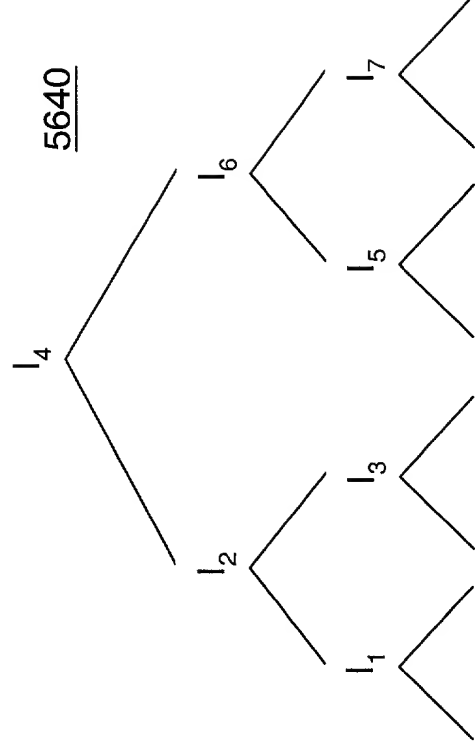
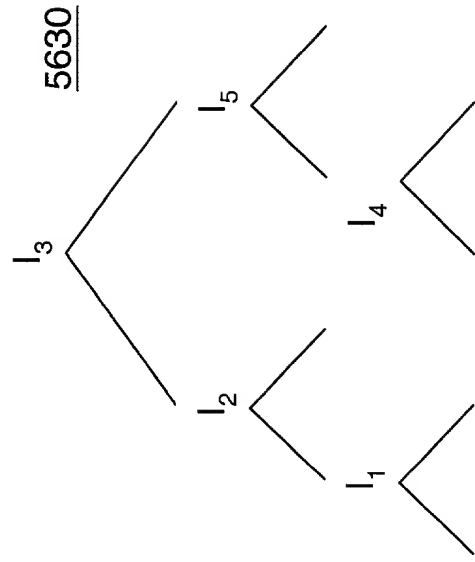


FIG. 56C

FIG. 56D

FIG. 57

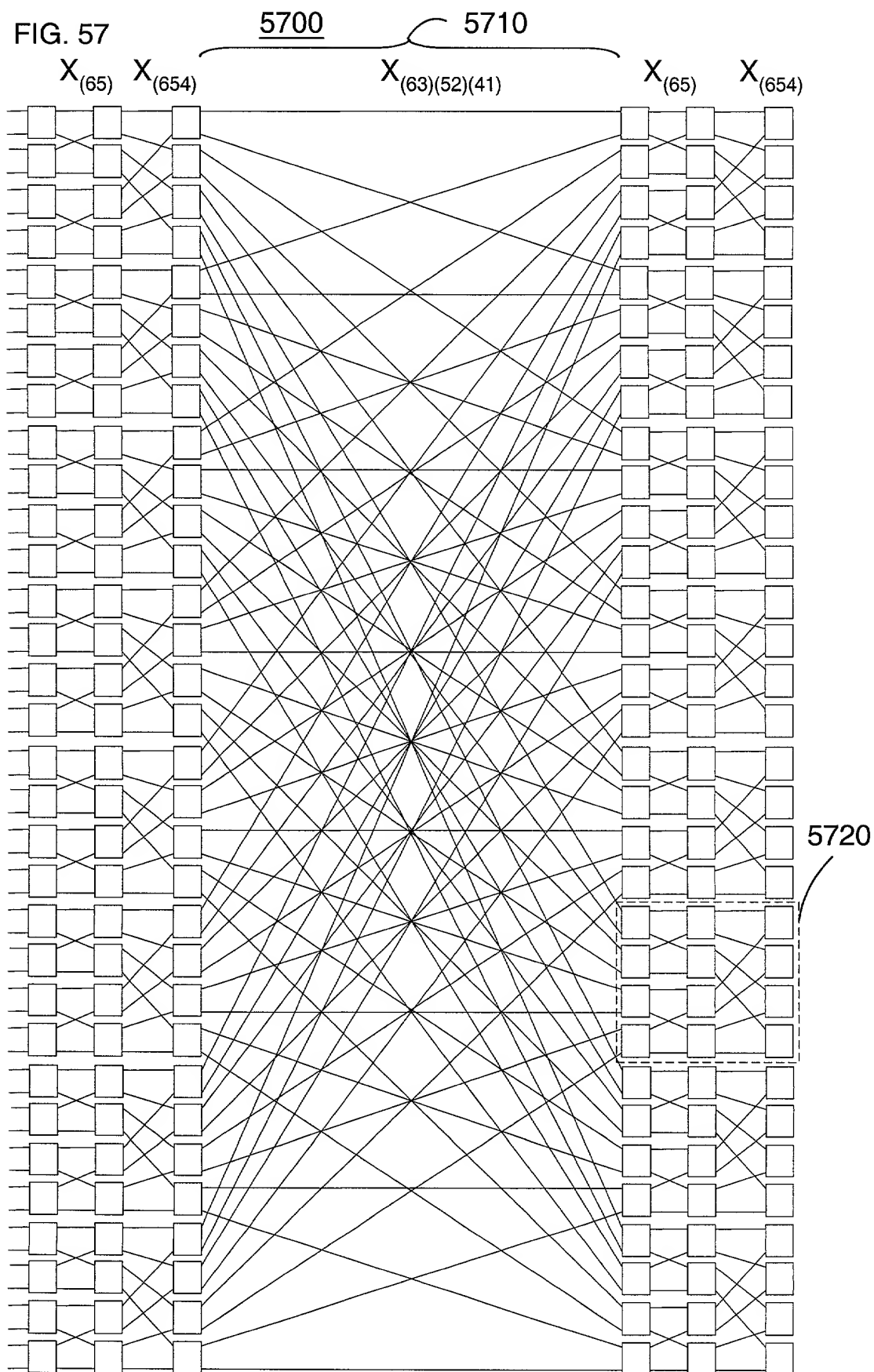


FIG. 58

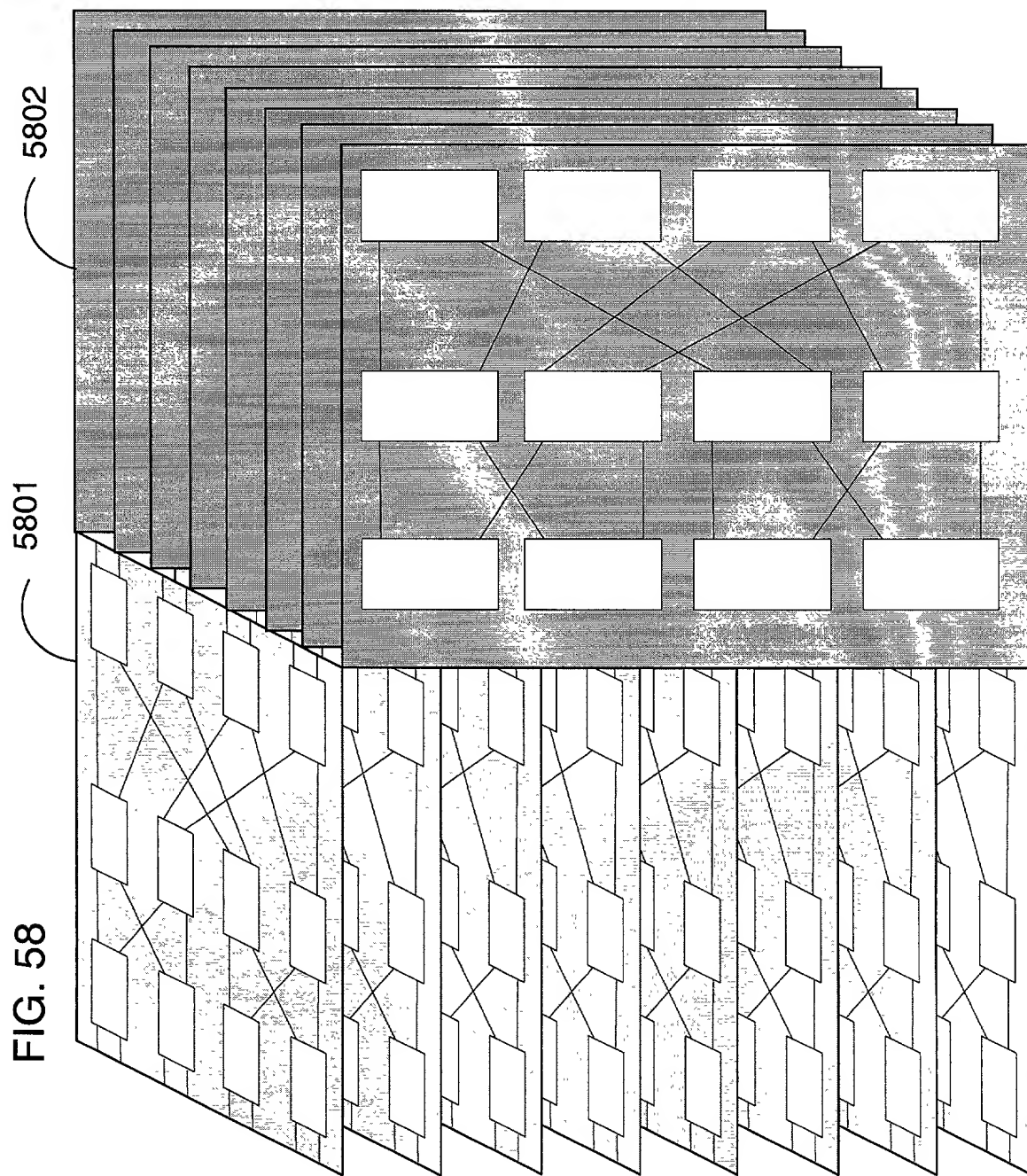
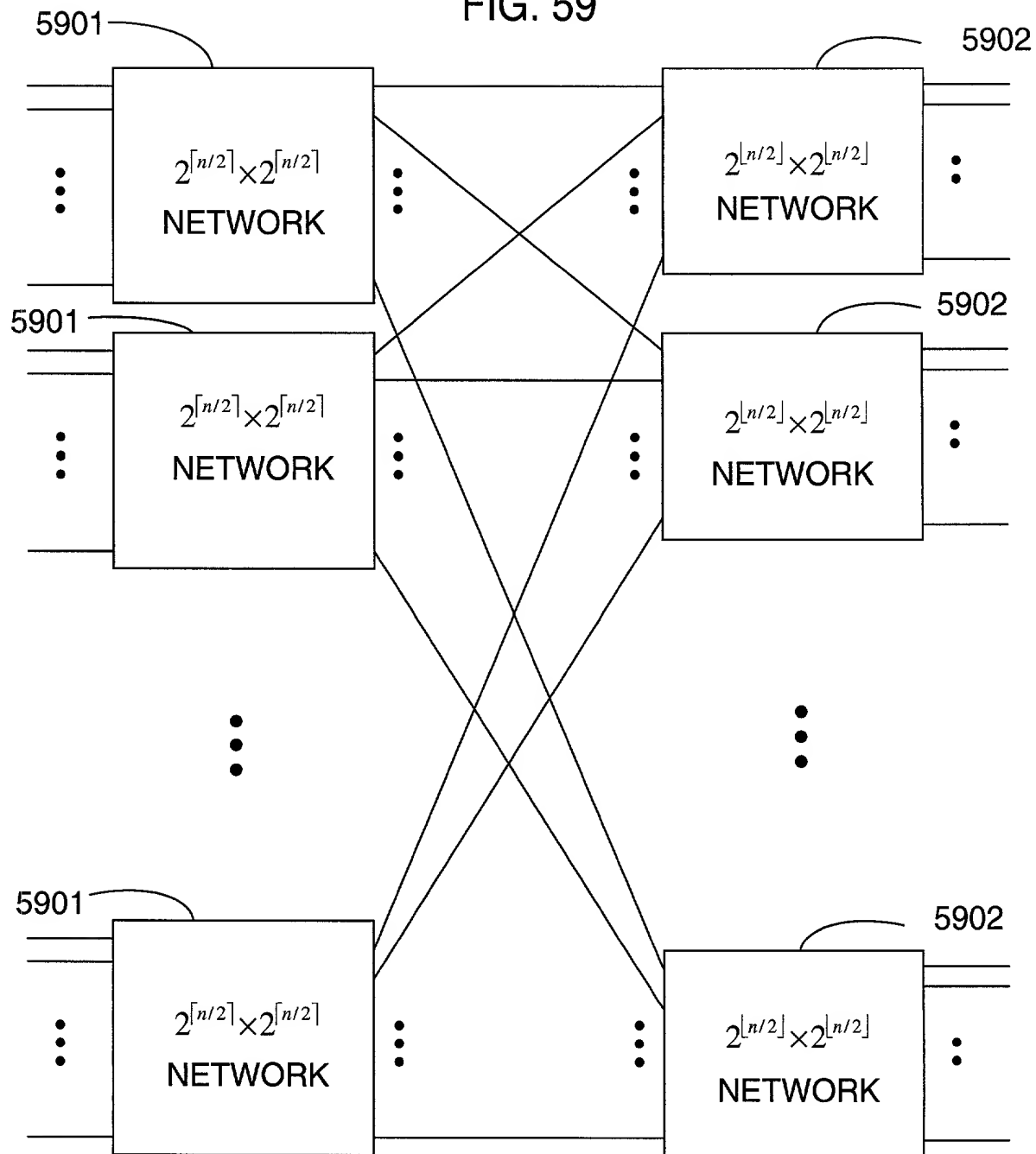


FIG. 59



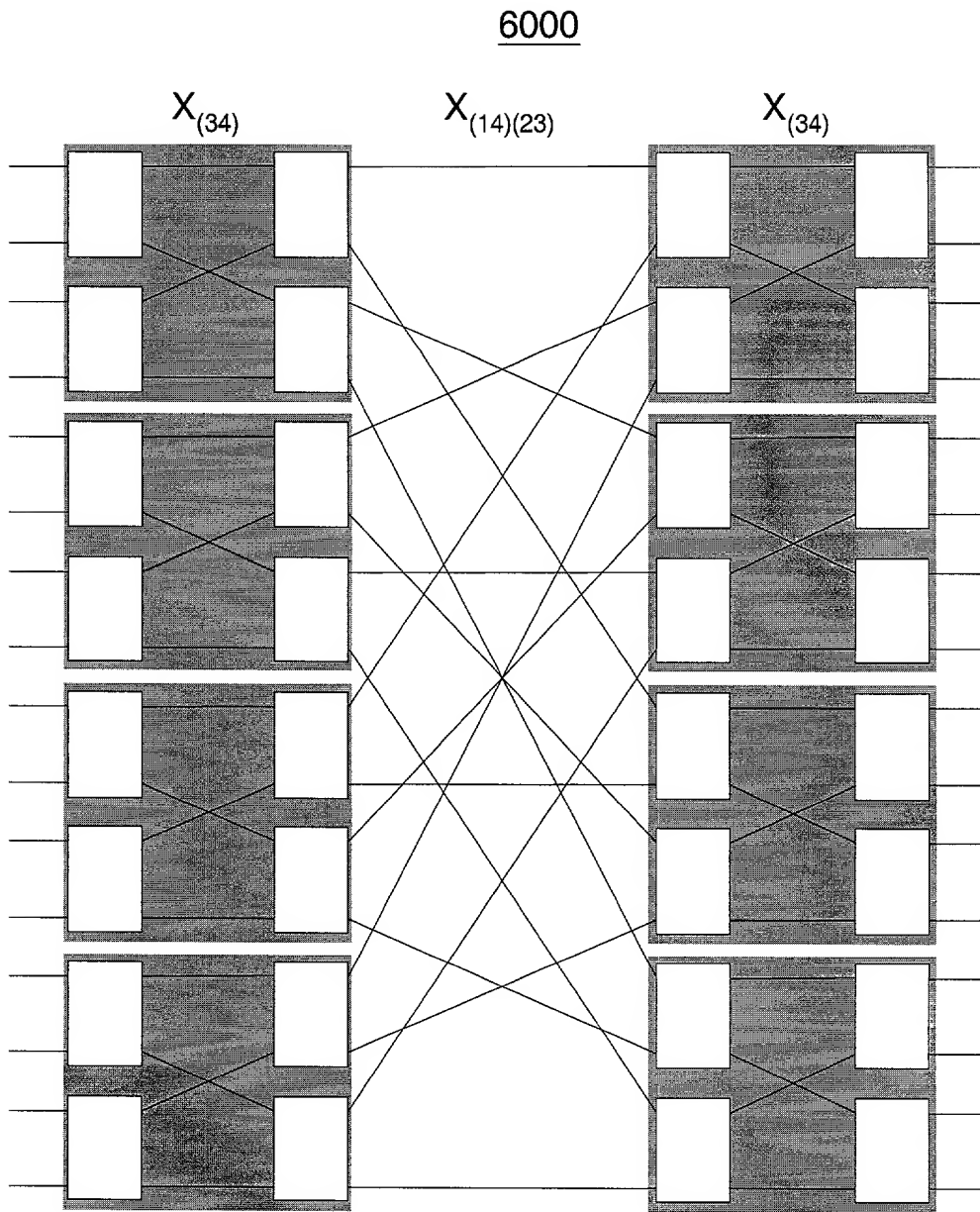
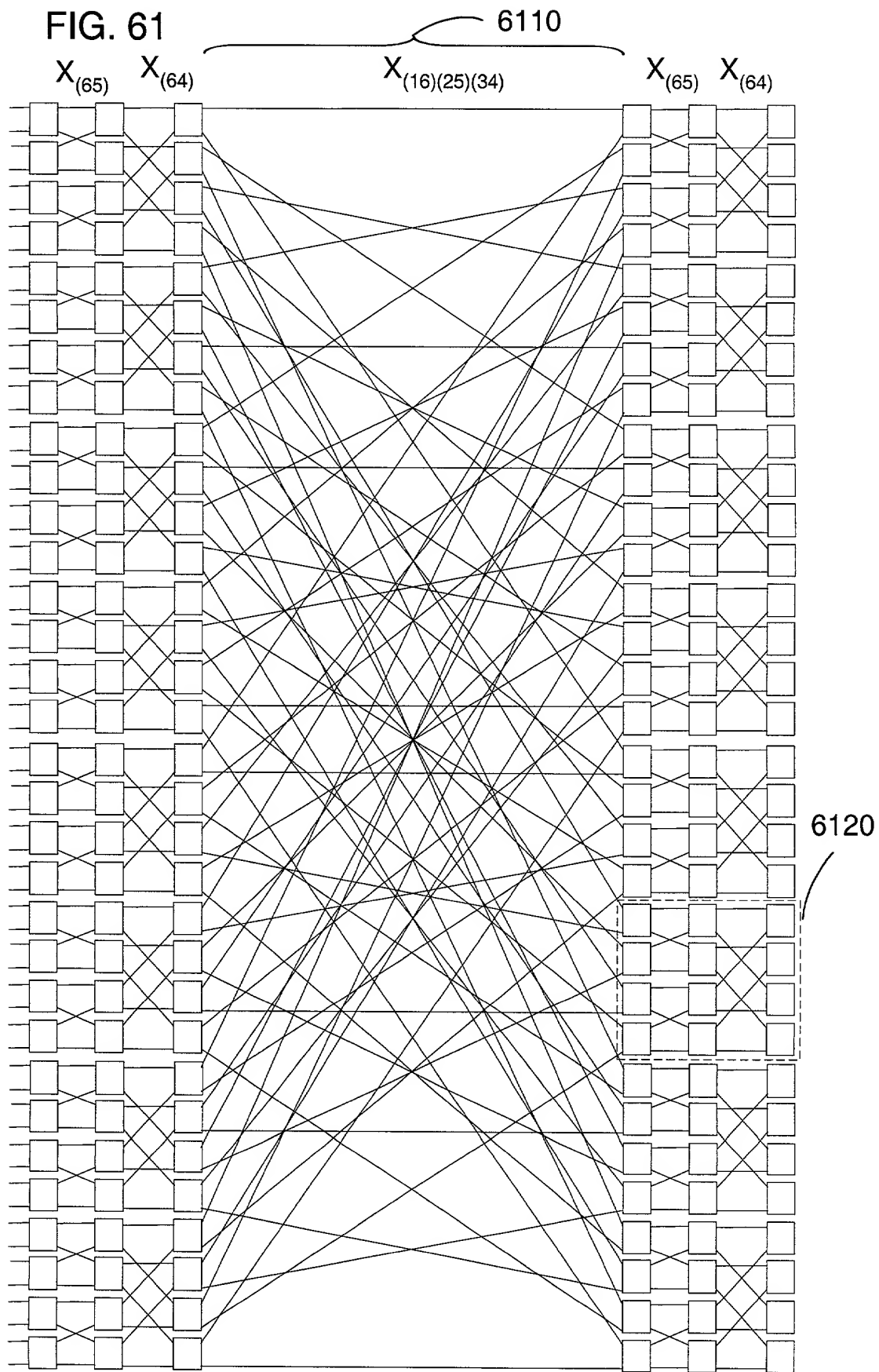


FIG. 60

FIG. 61



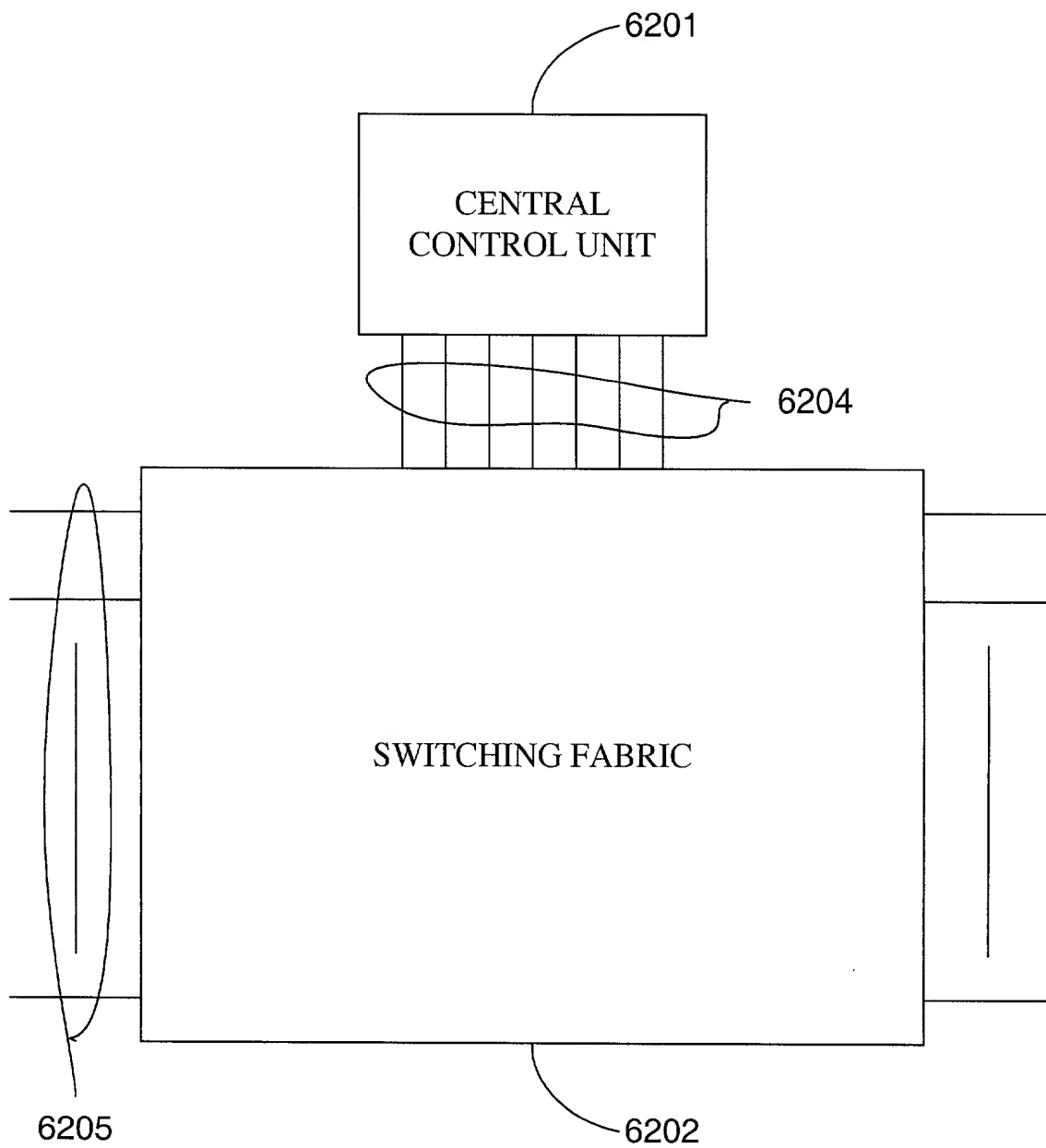


FIG. 62A

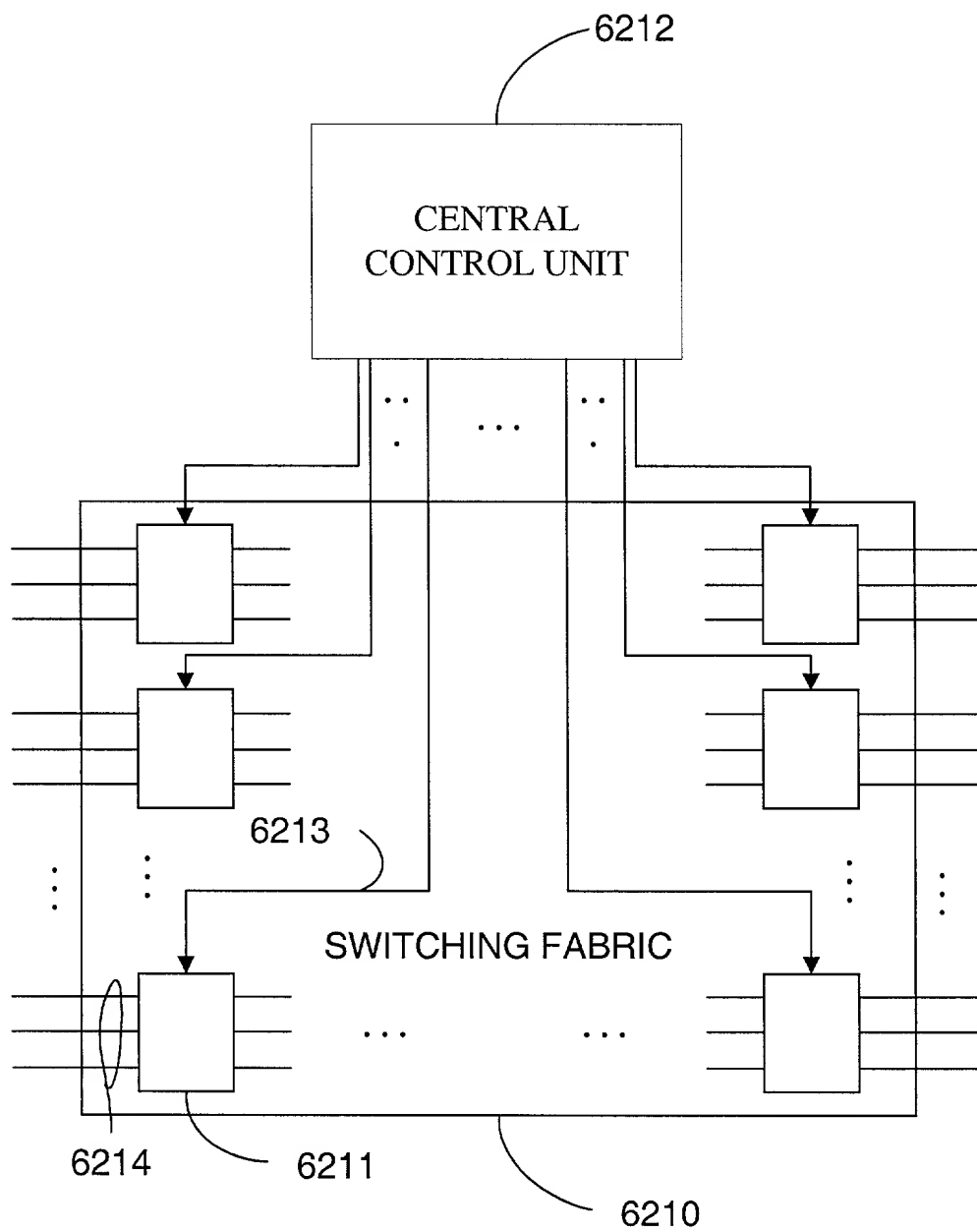


FIG. 62B

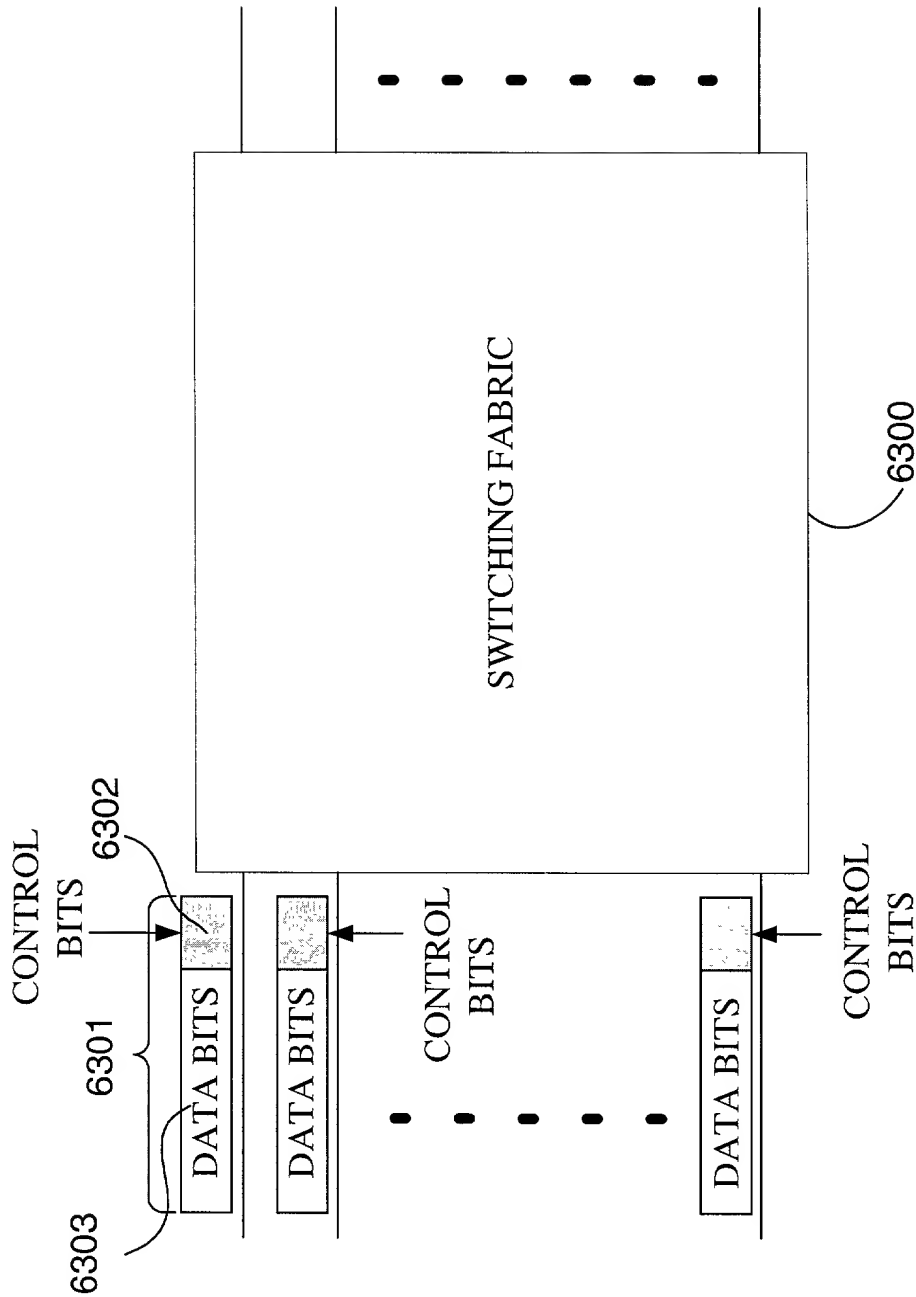


FIG. 63A

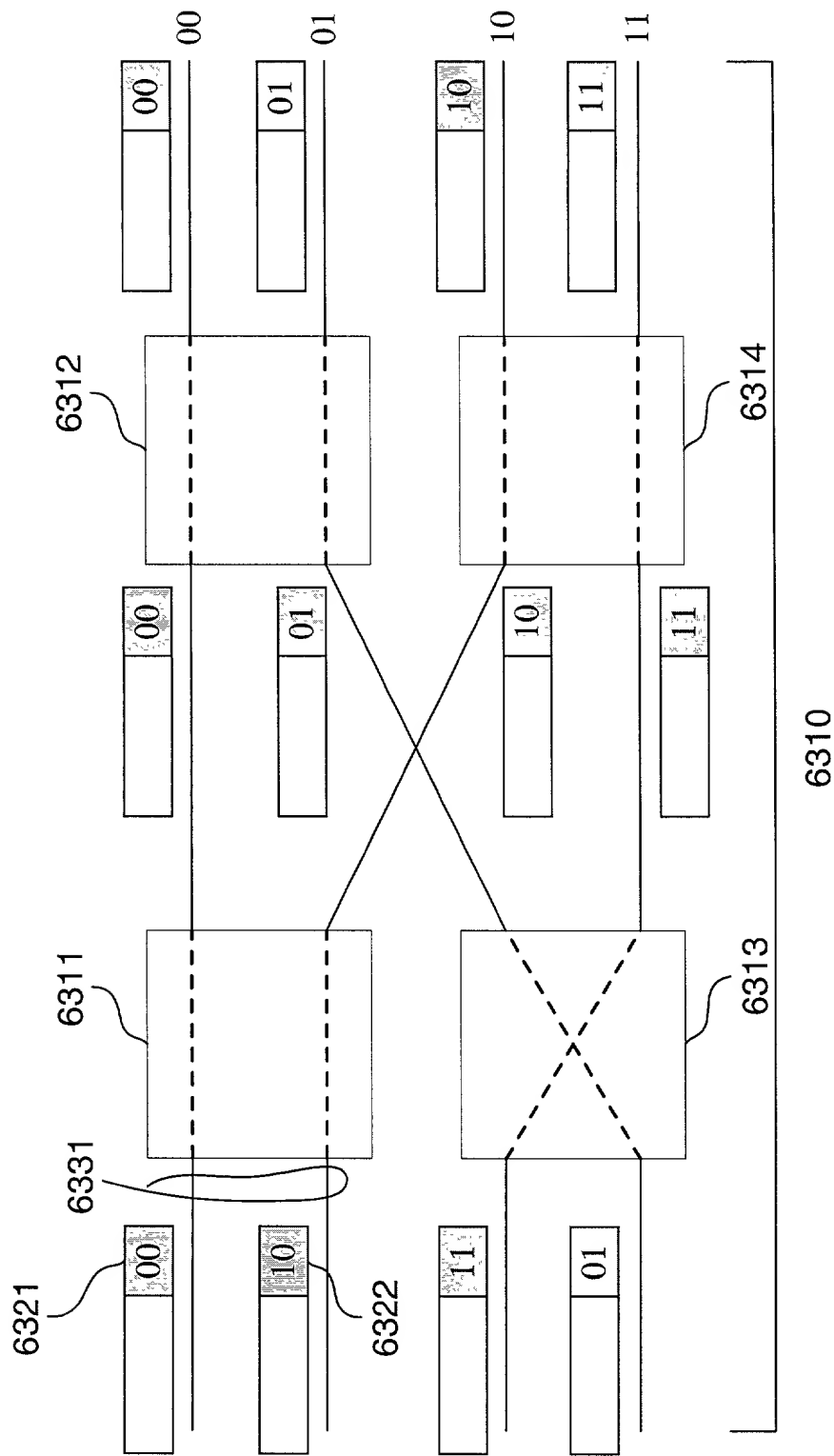


FIG. 63B

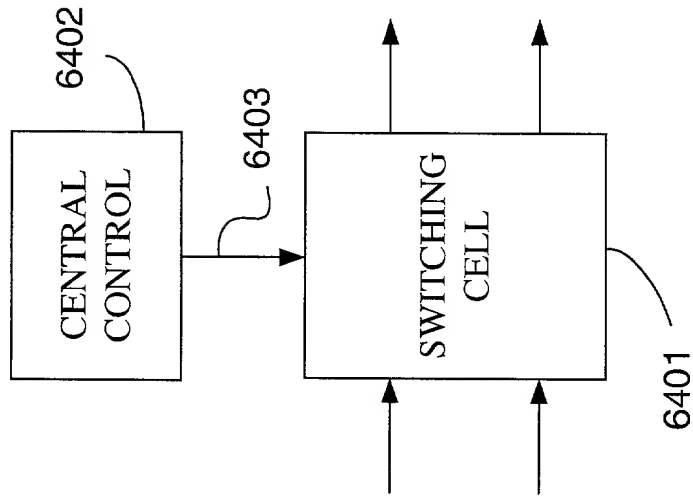


FIG. 64A

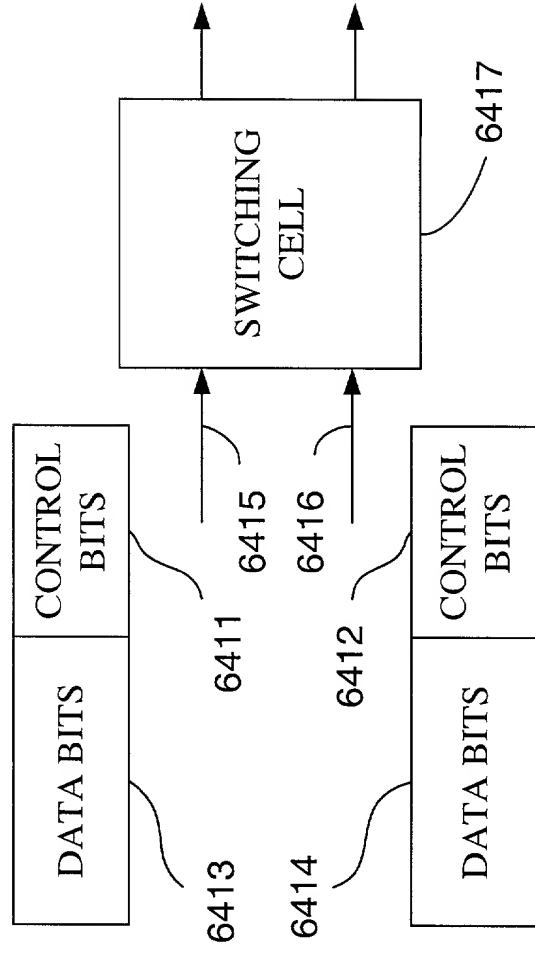


FIG. 64B

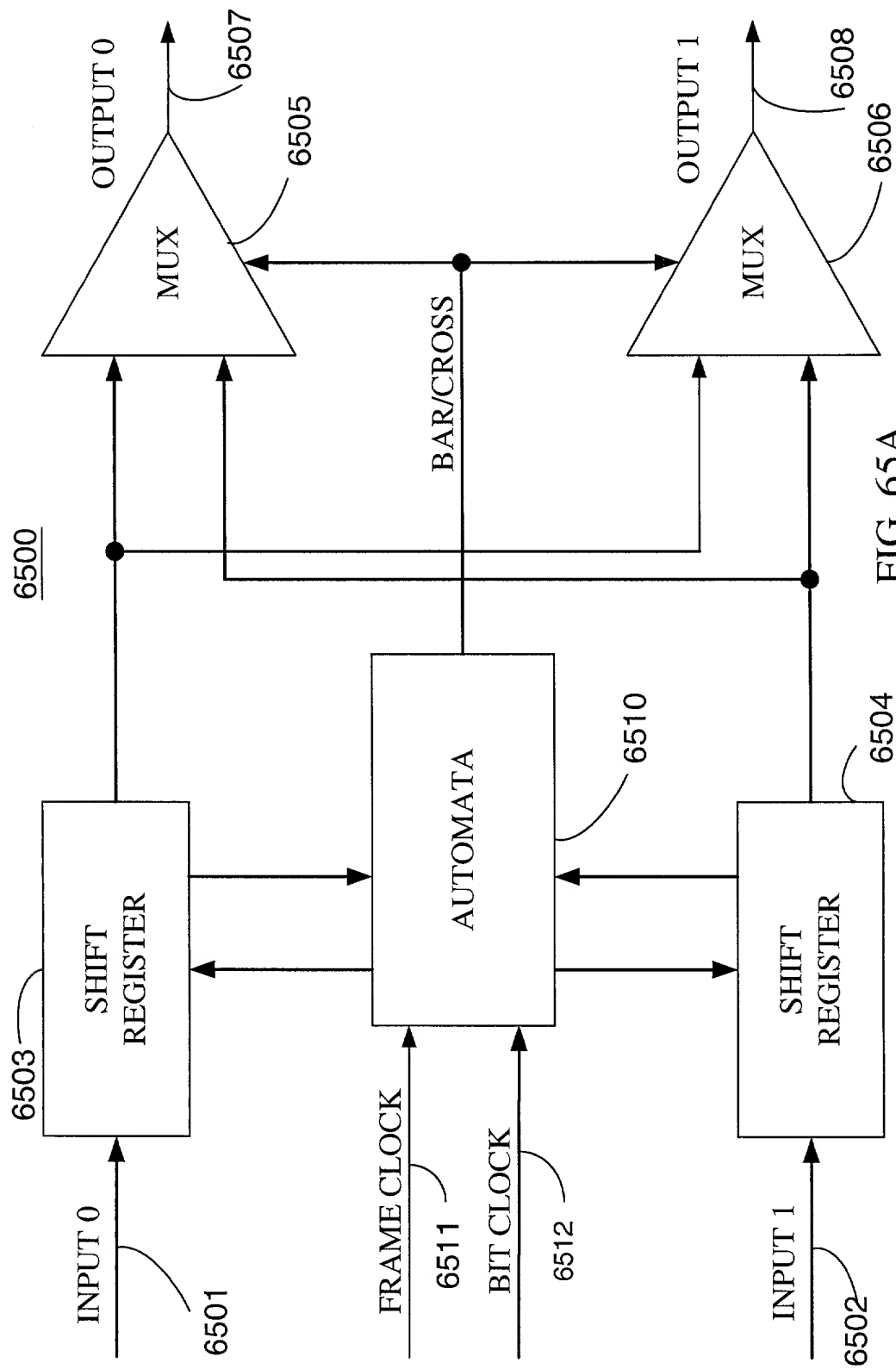


FIG. 65A

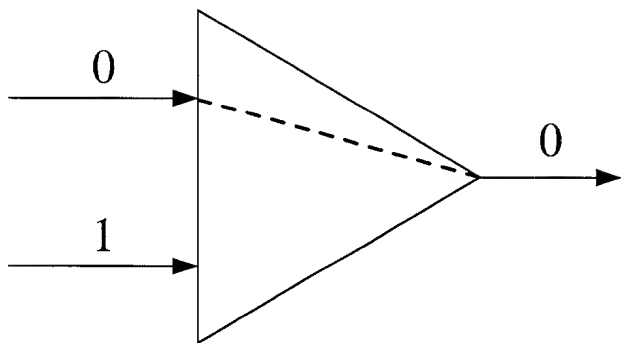


FIG. 65B

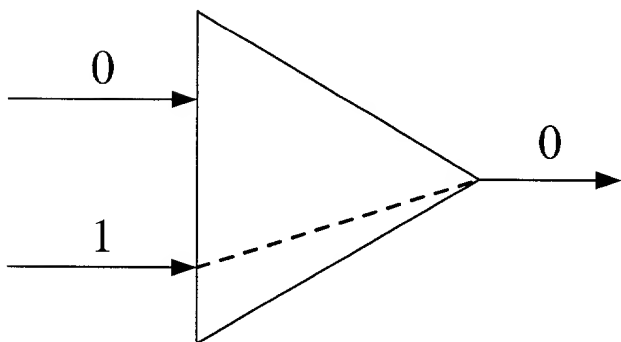


FIG. 65C

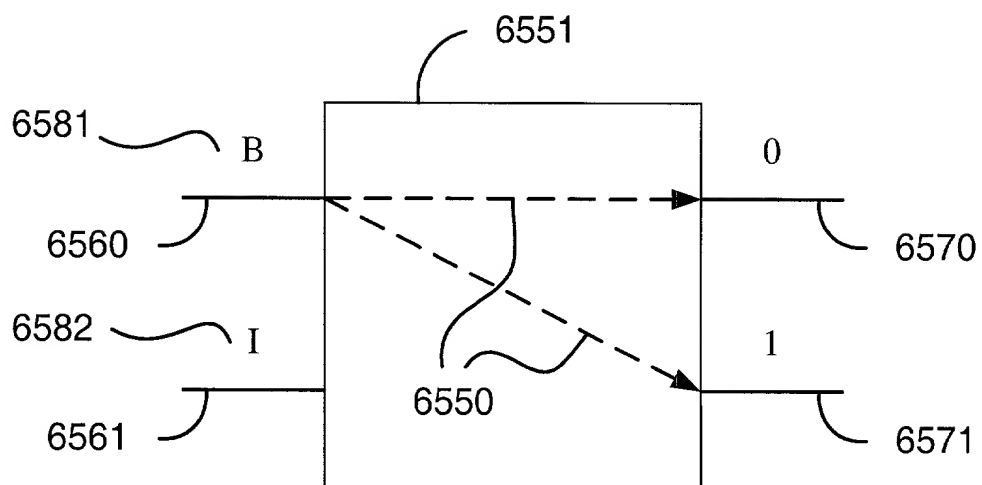


FIG. 65D

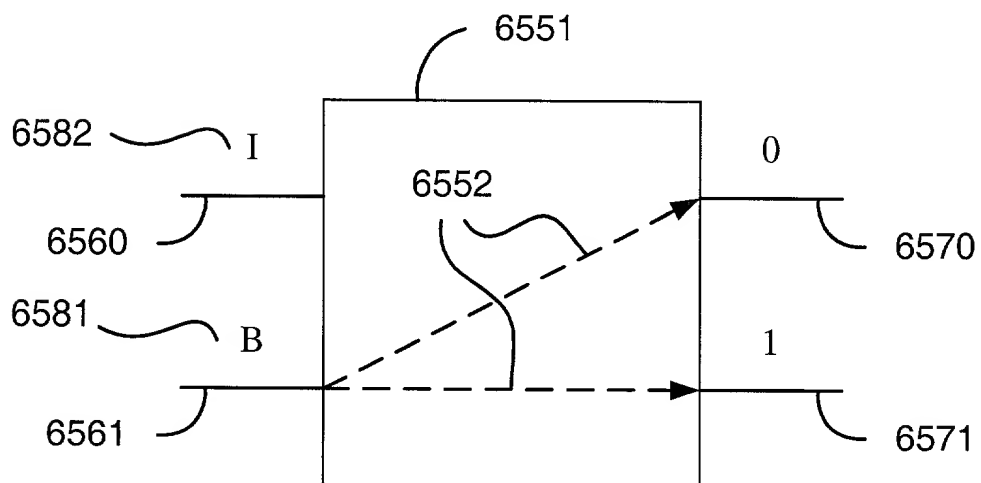


FIG. 65E

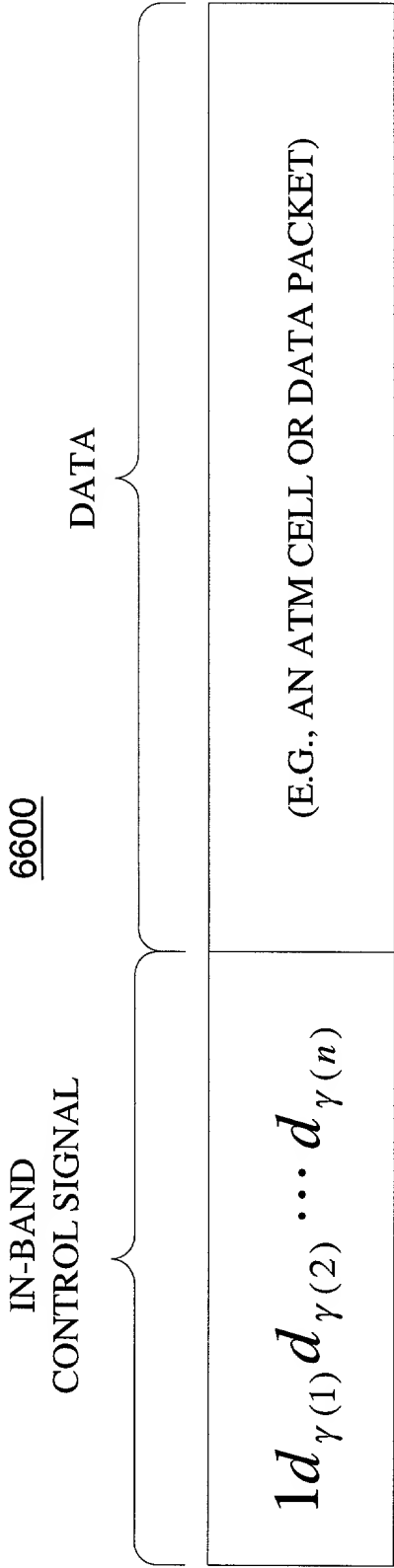


FIG. 66A

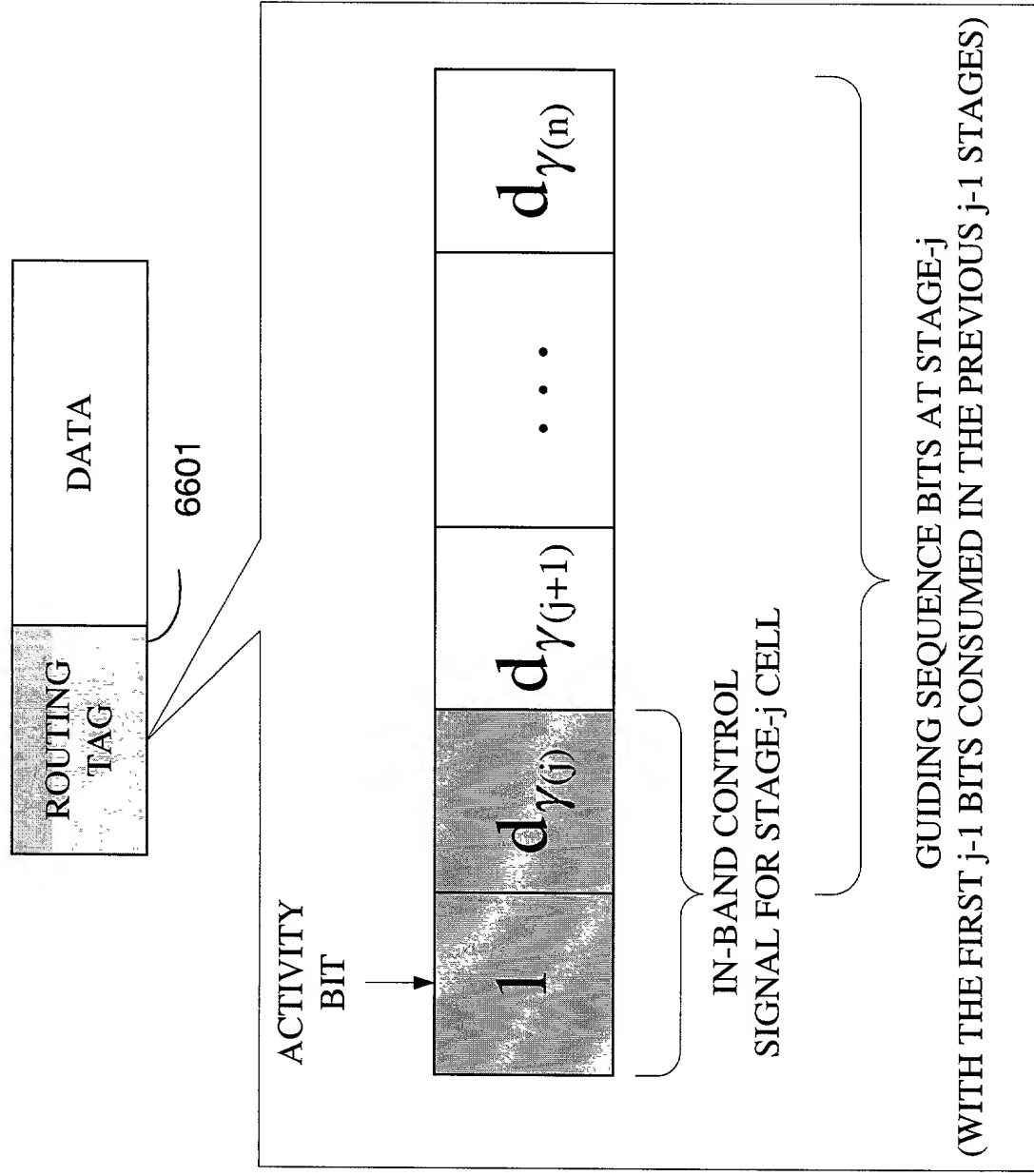


FIG. 66B

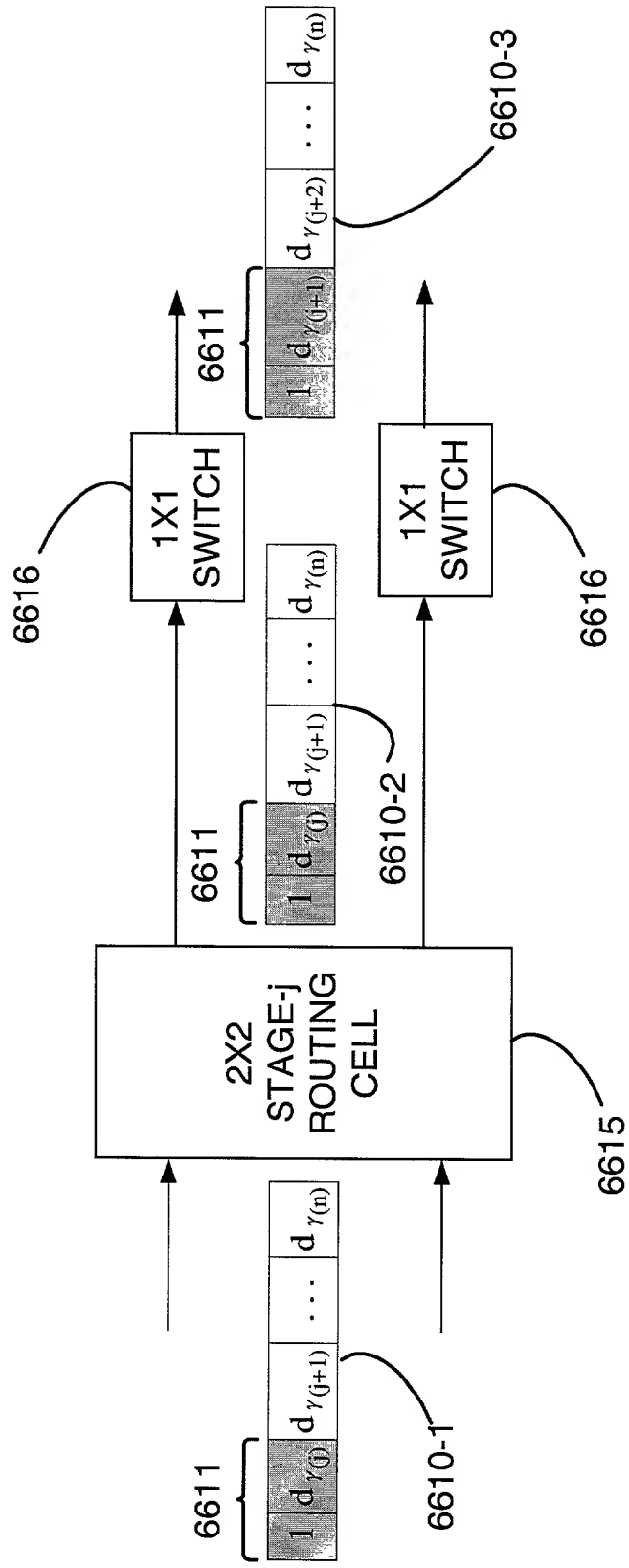


FIG. 66C

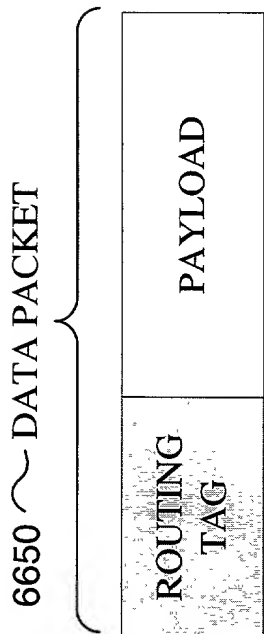
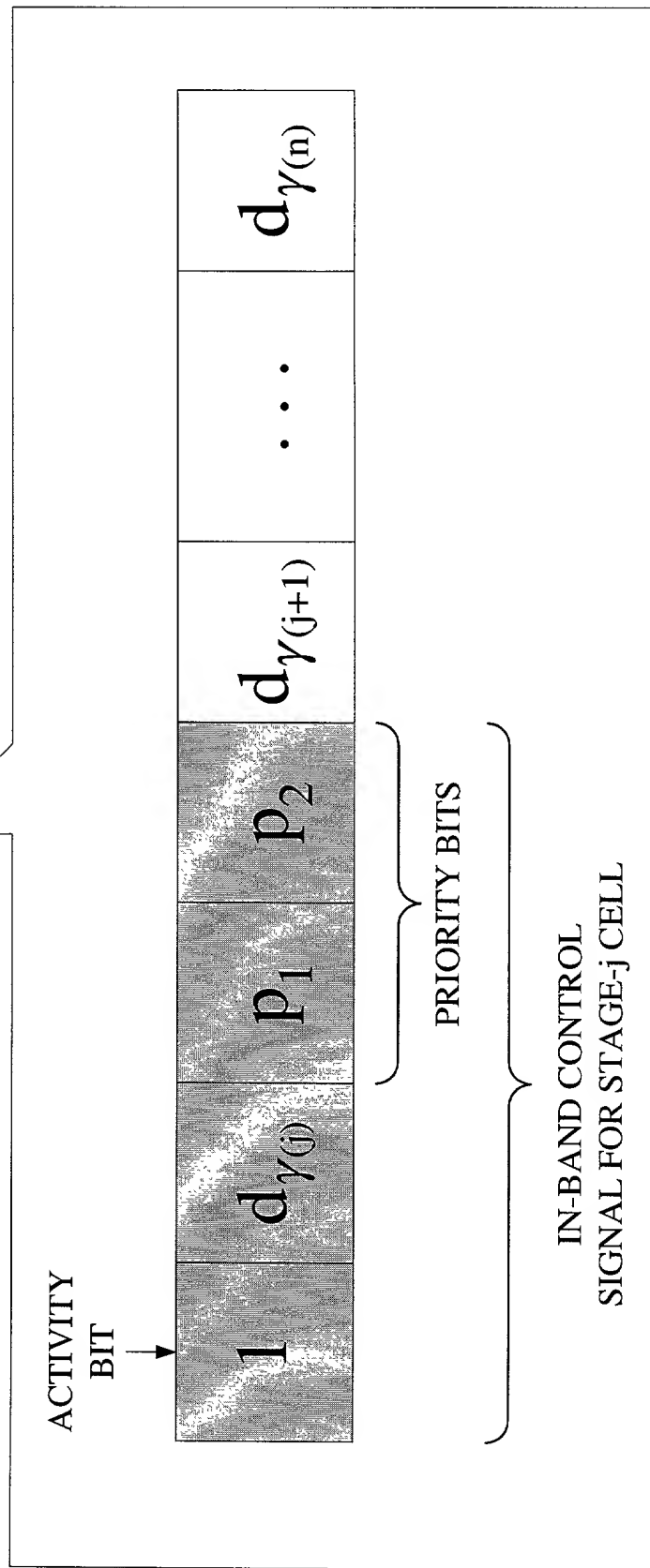


FIG. 66D



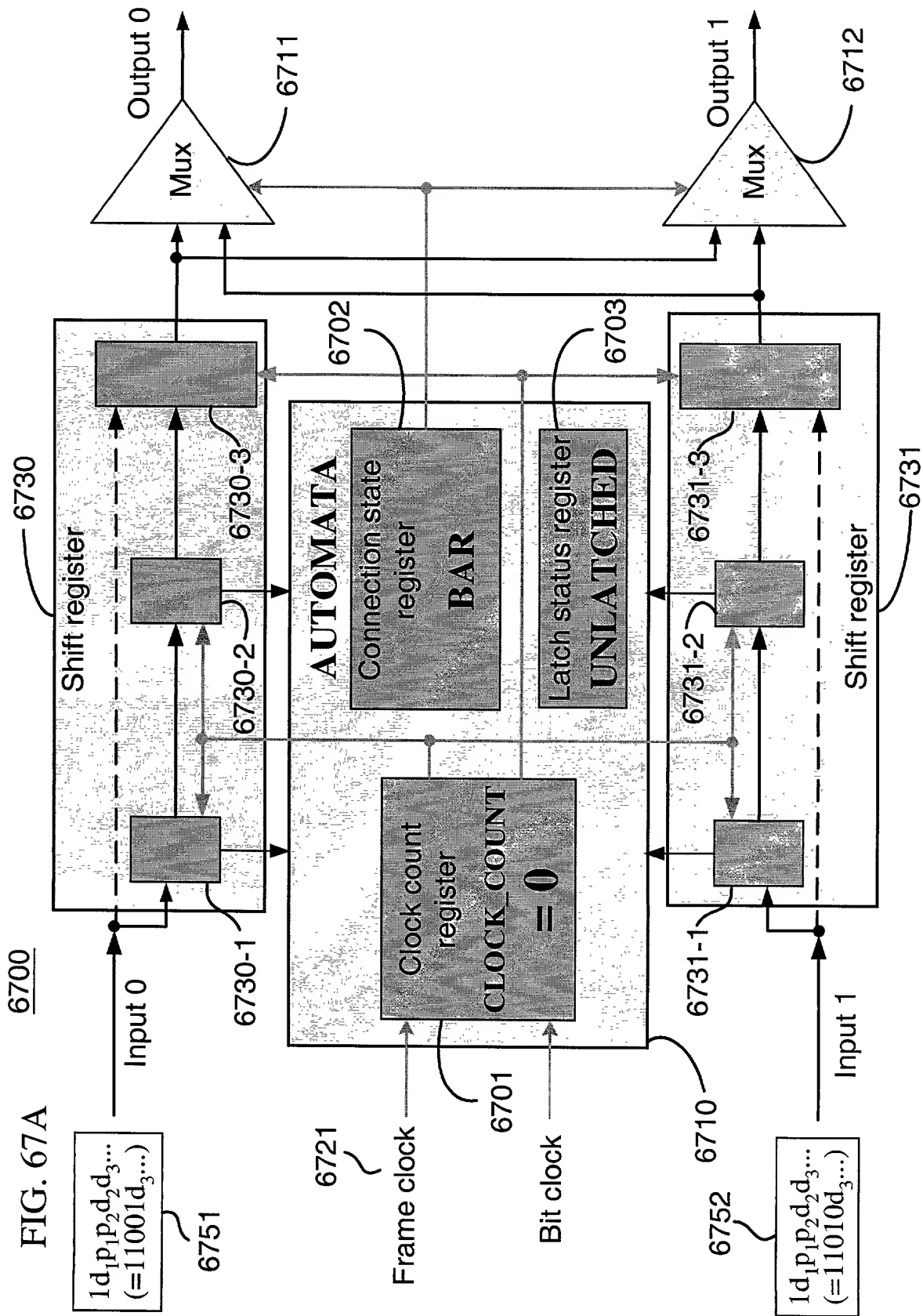
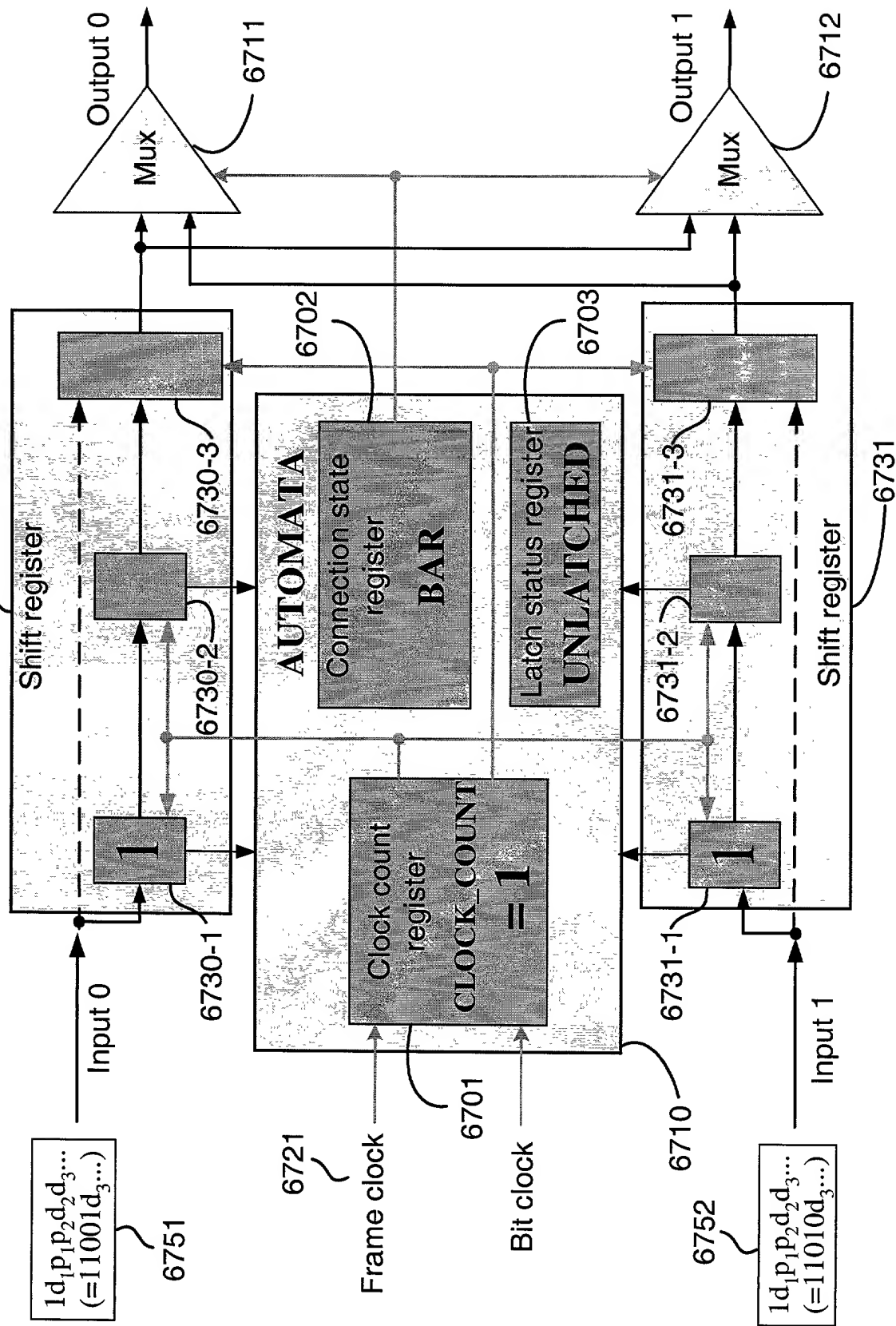


FIG. 67B



6700

FIG. 67C

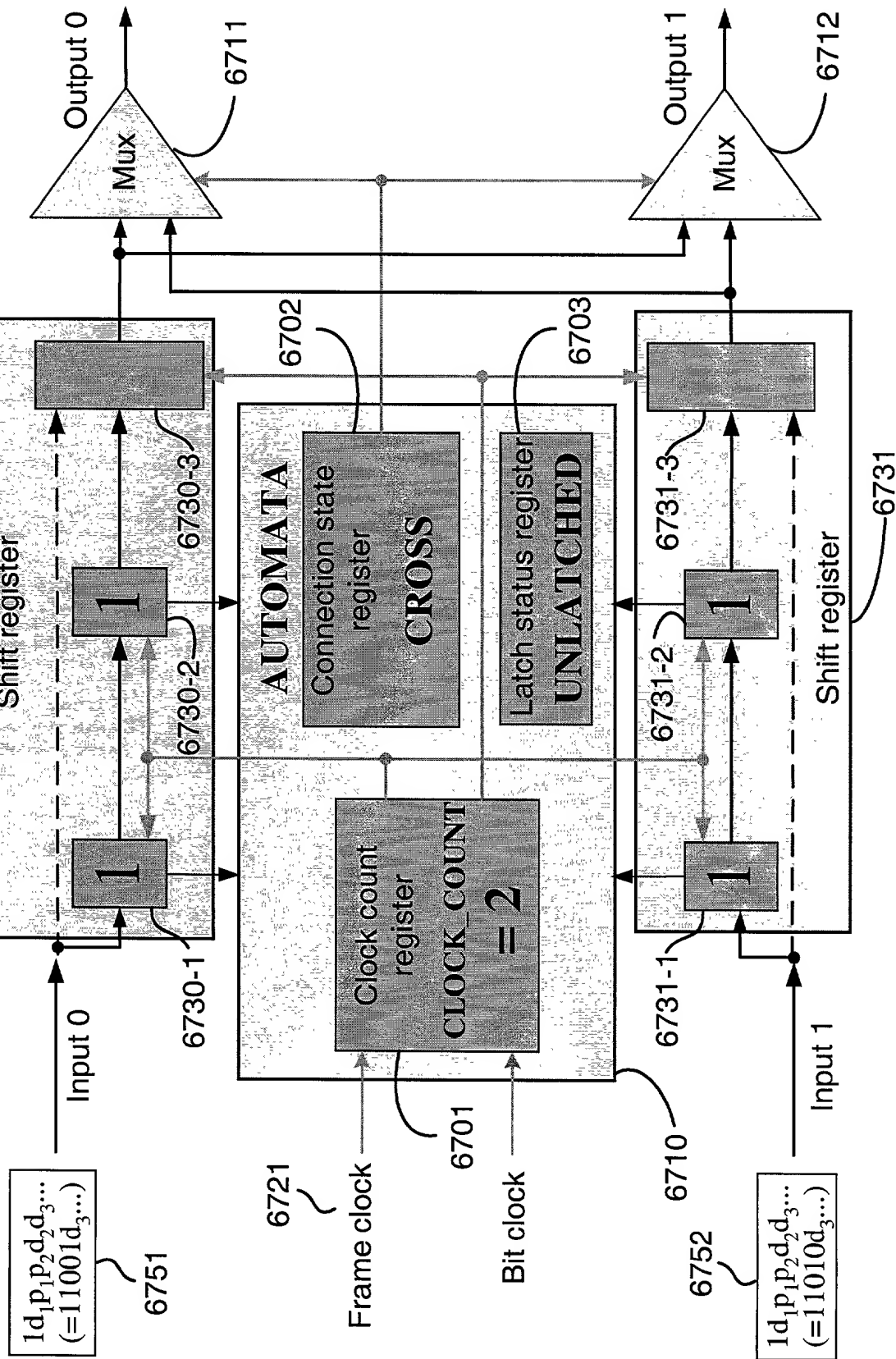


FIG. 67D

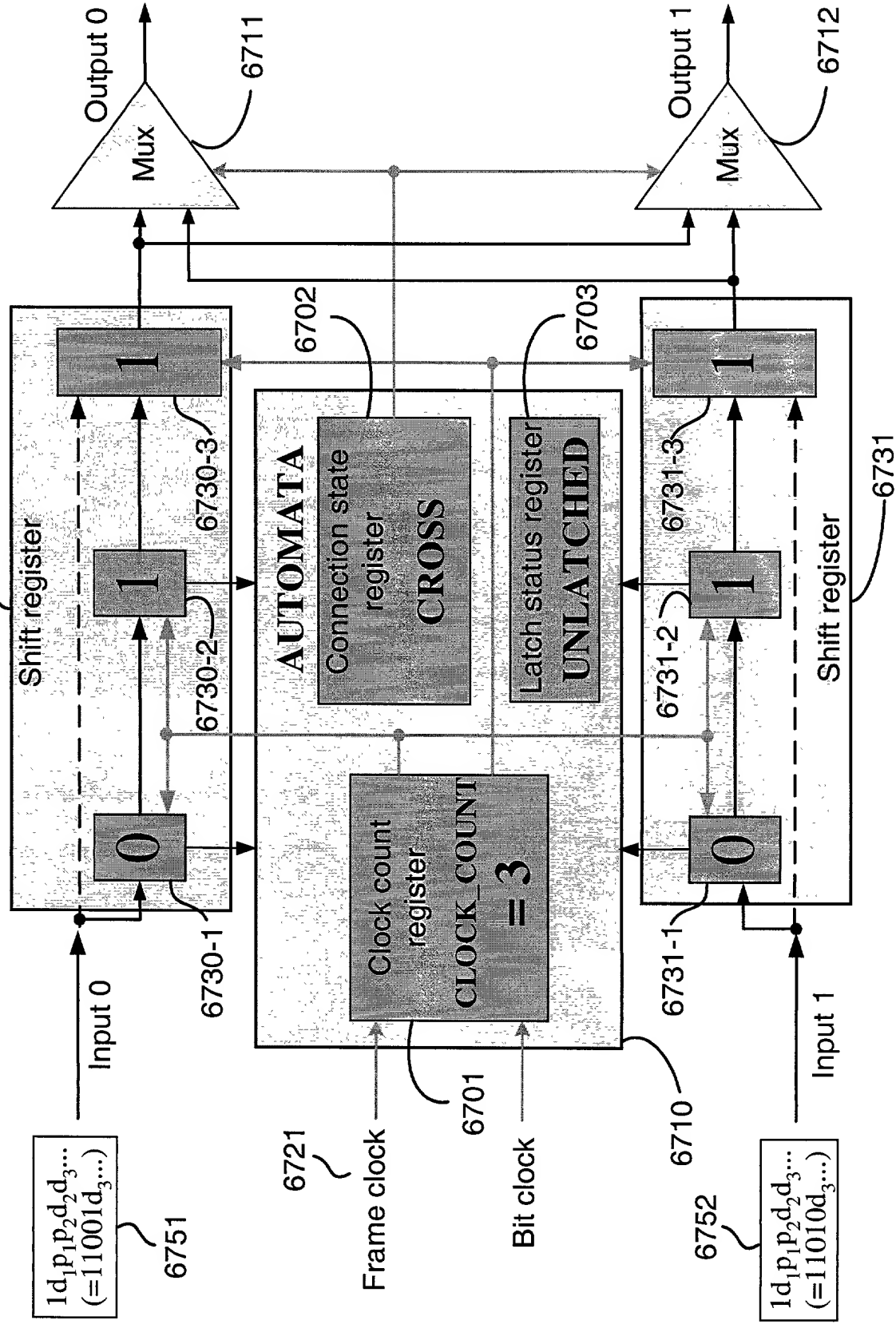


FIG. 67E

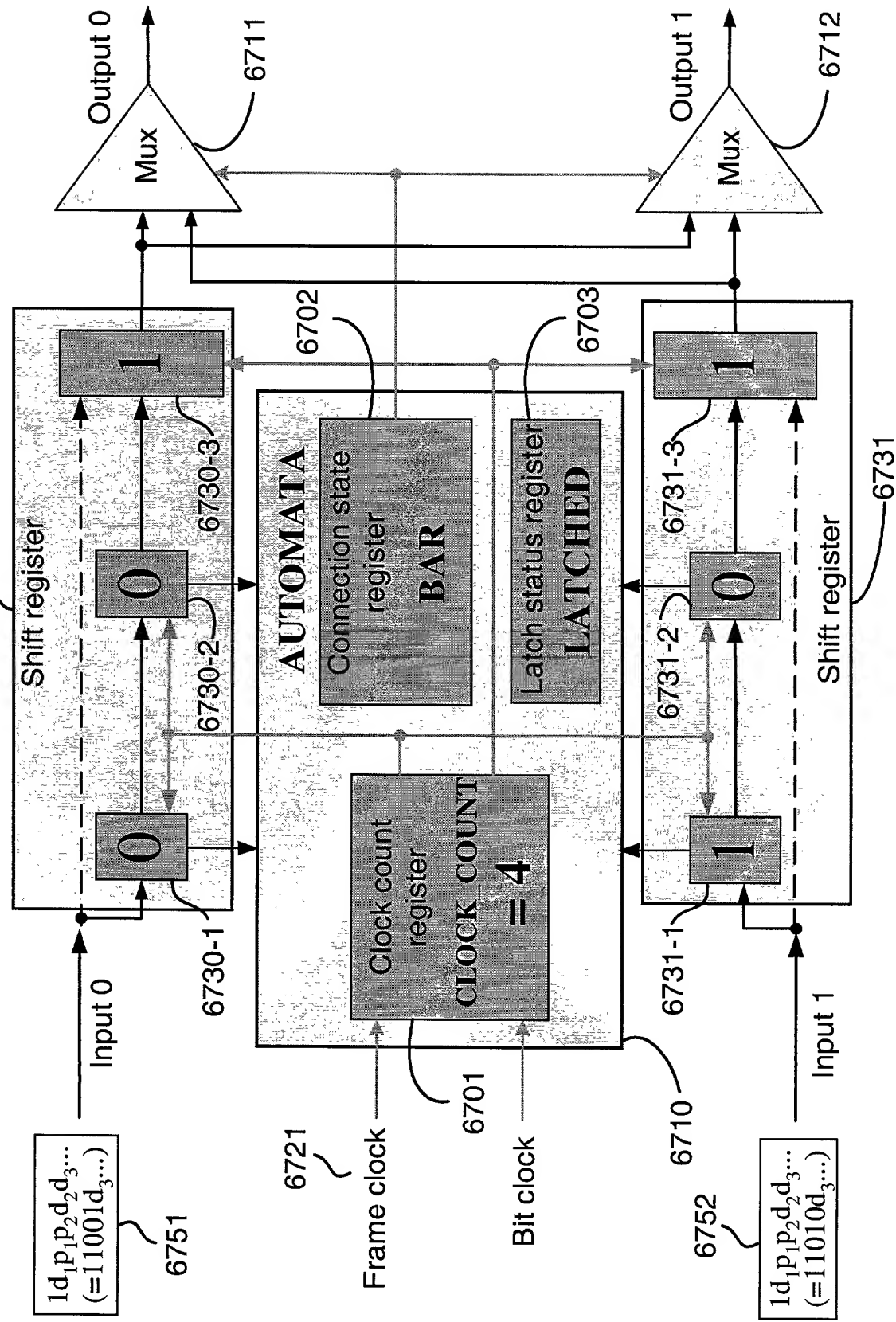
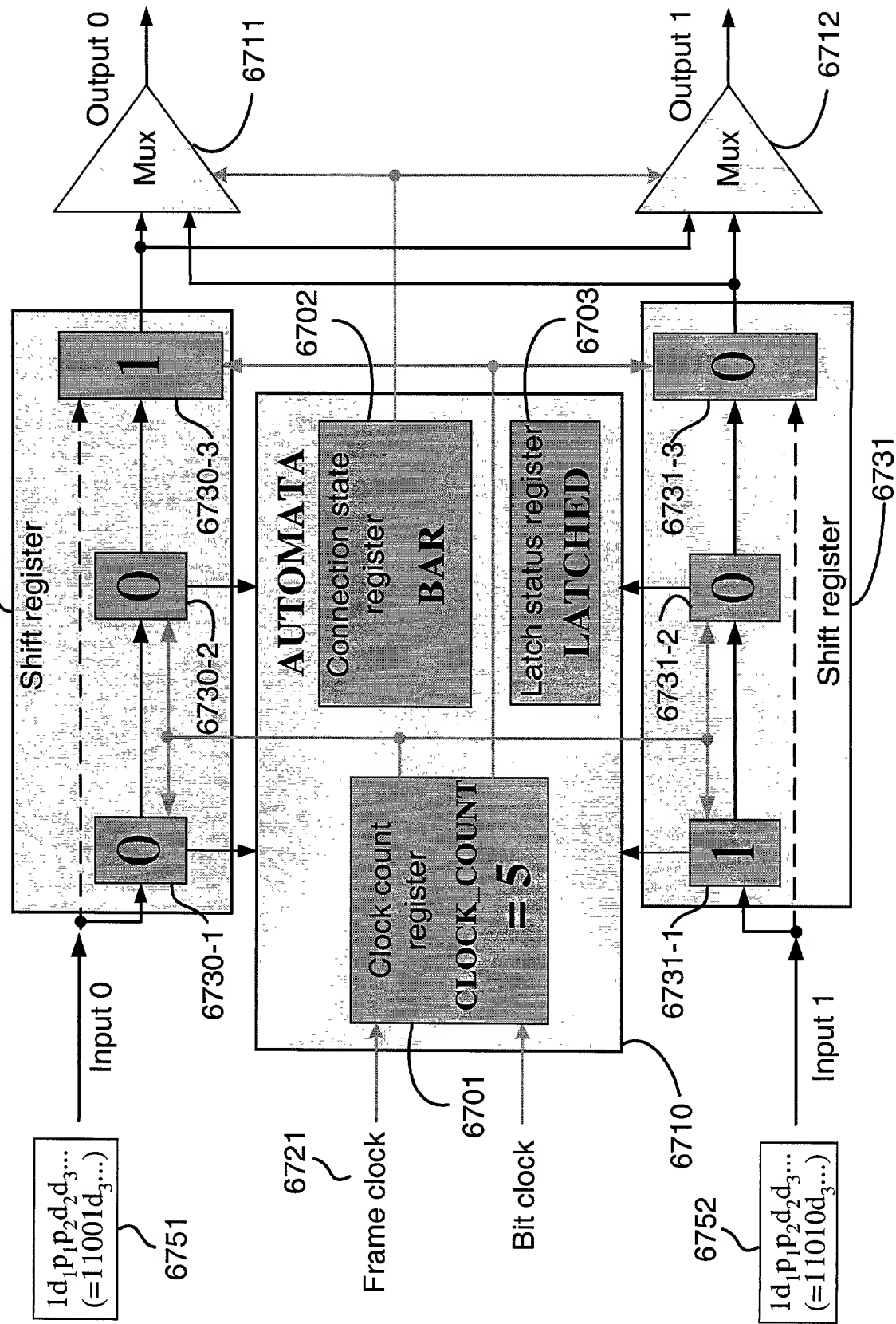


FIG. 67F



6800

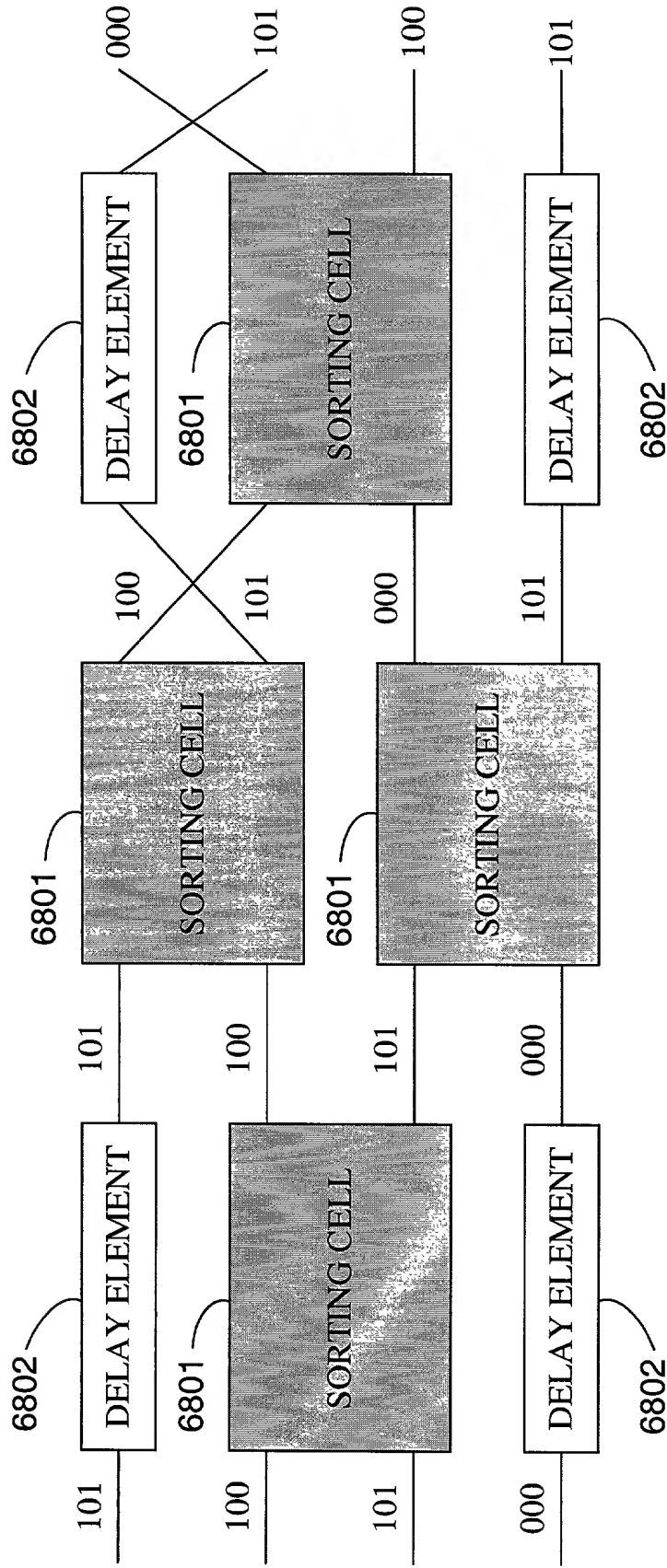
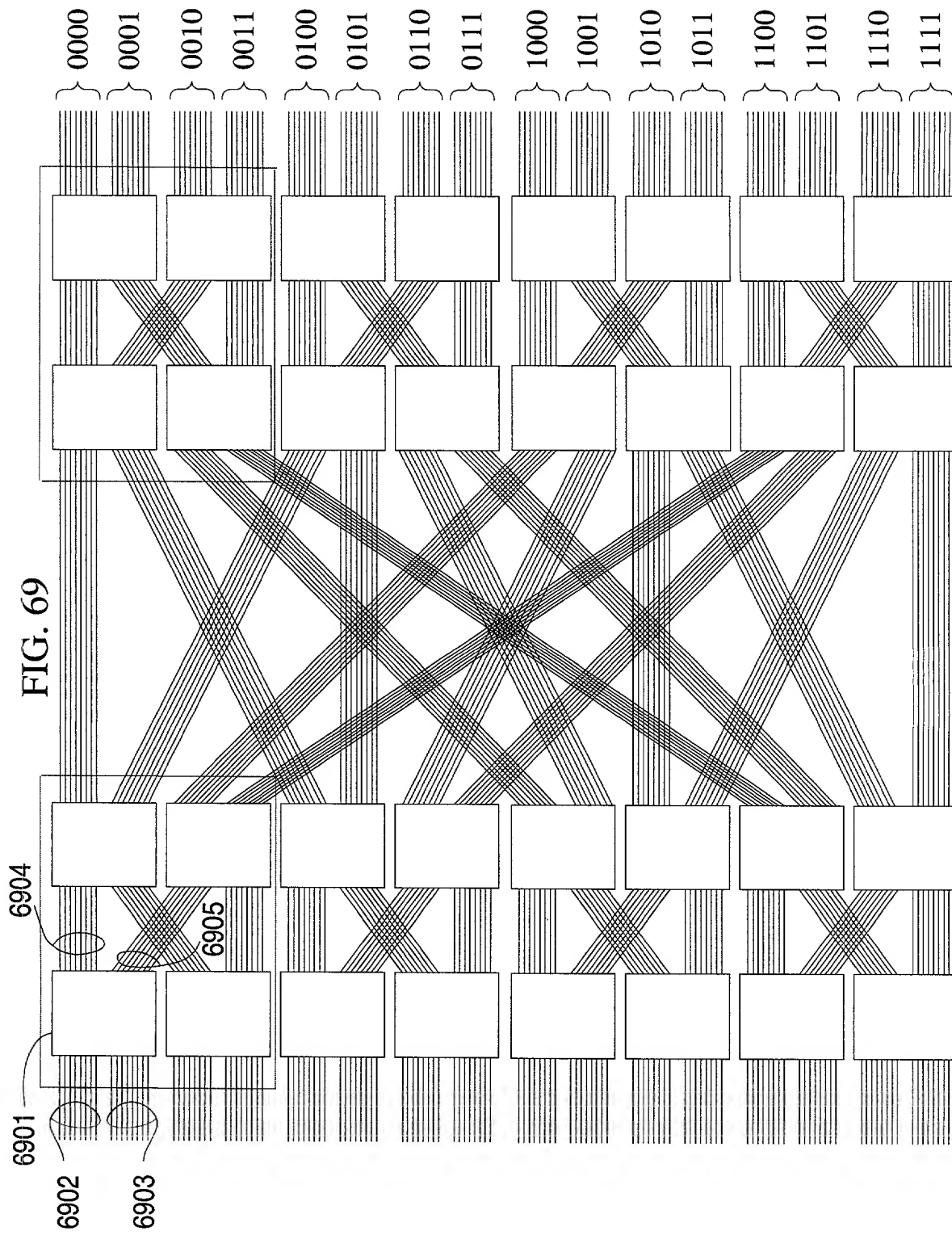


FIG. 68



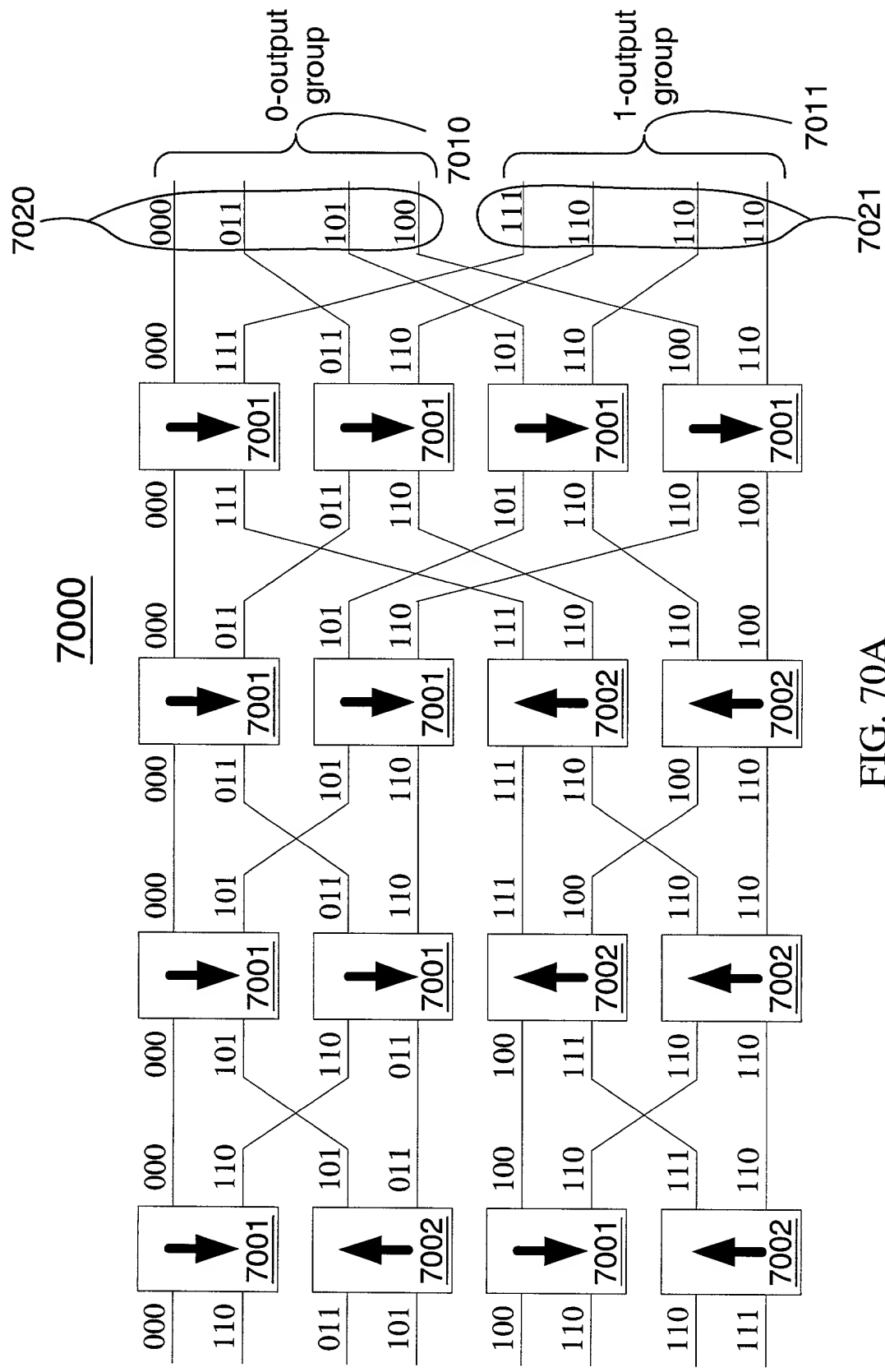
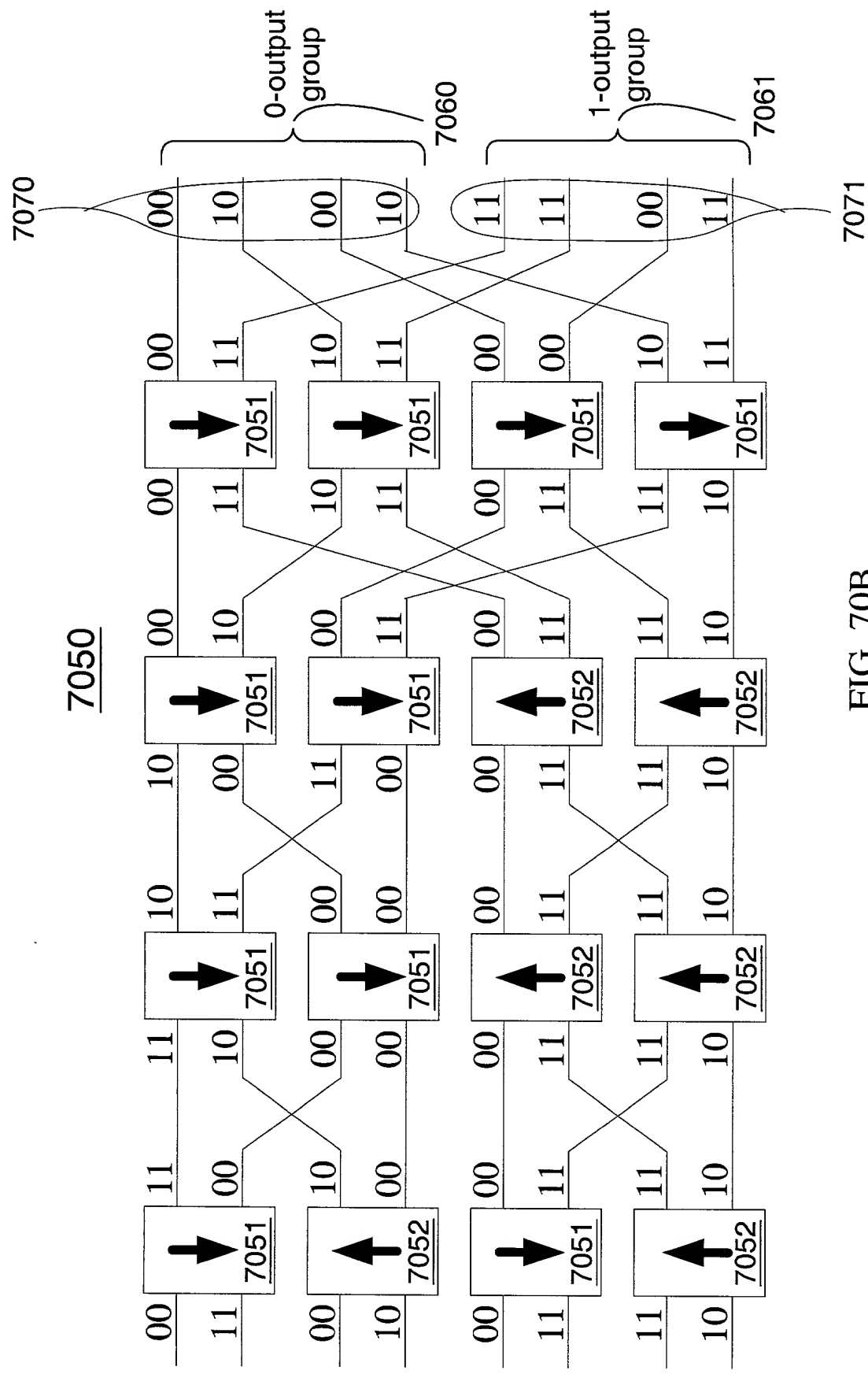


FIG. 70A



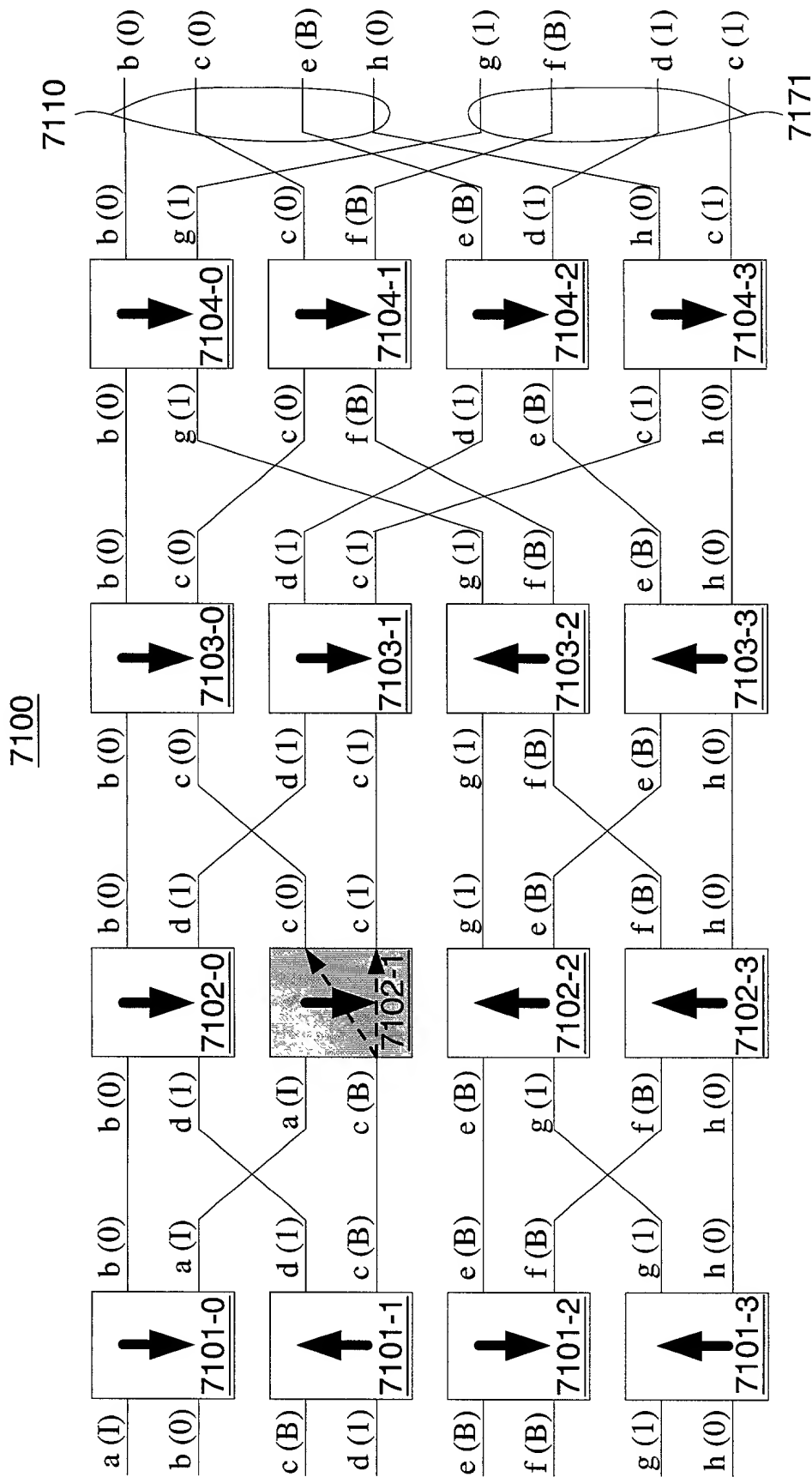


FIG. 71A

7100

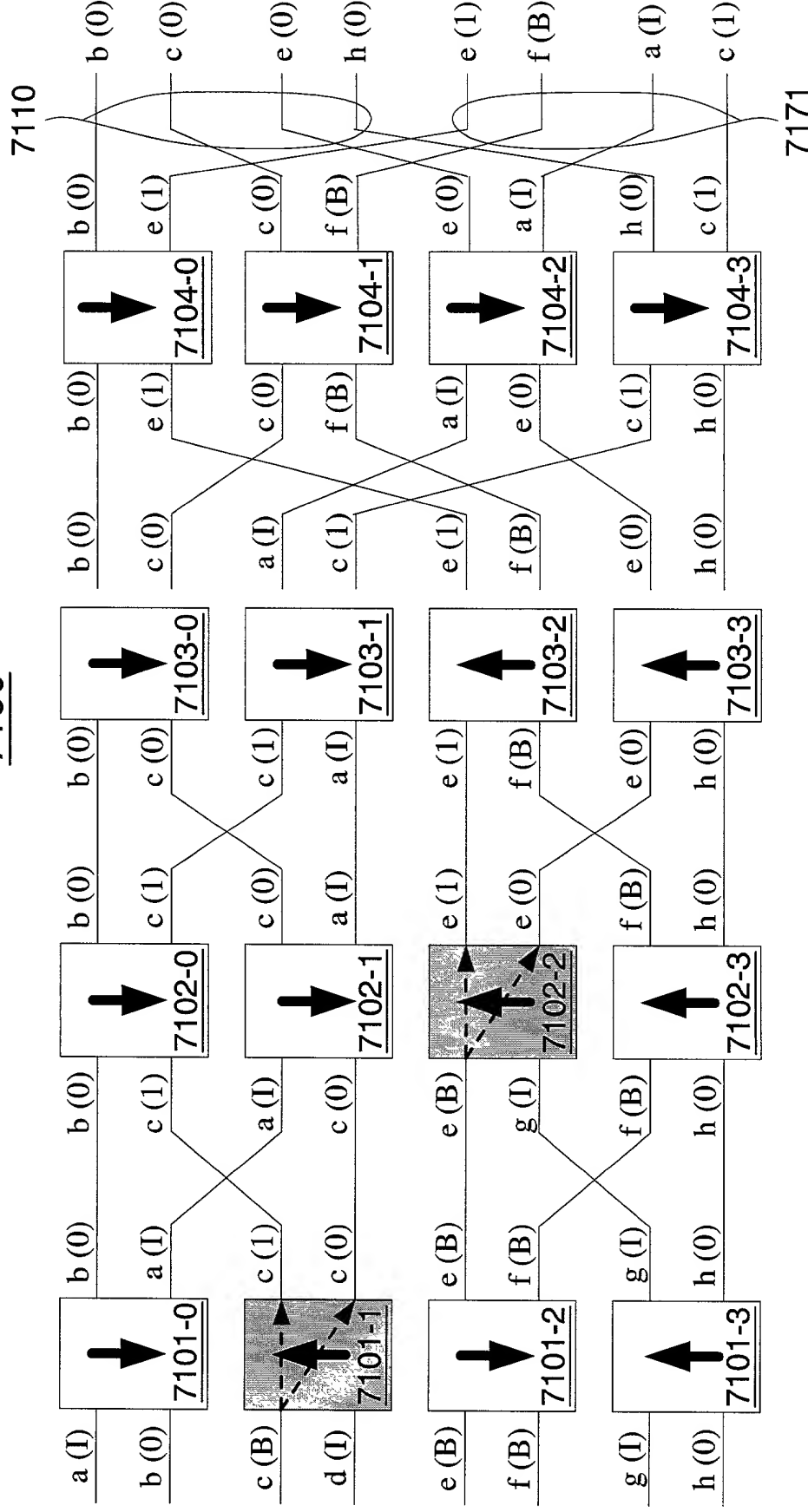


FIG. 71B

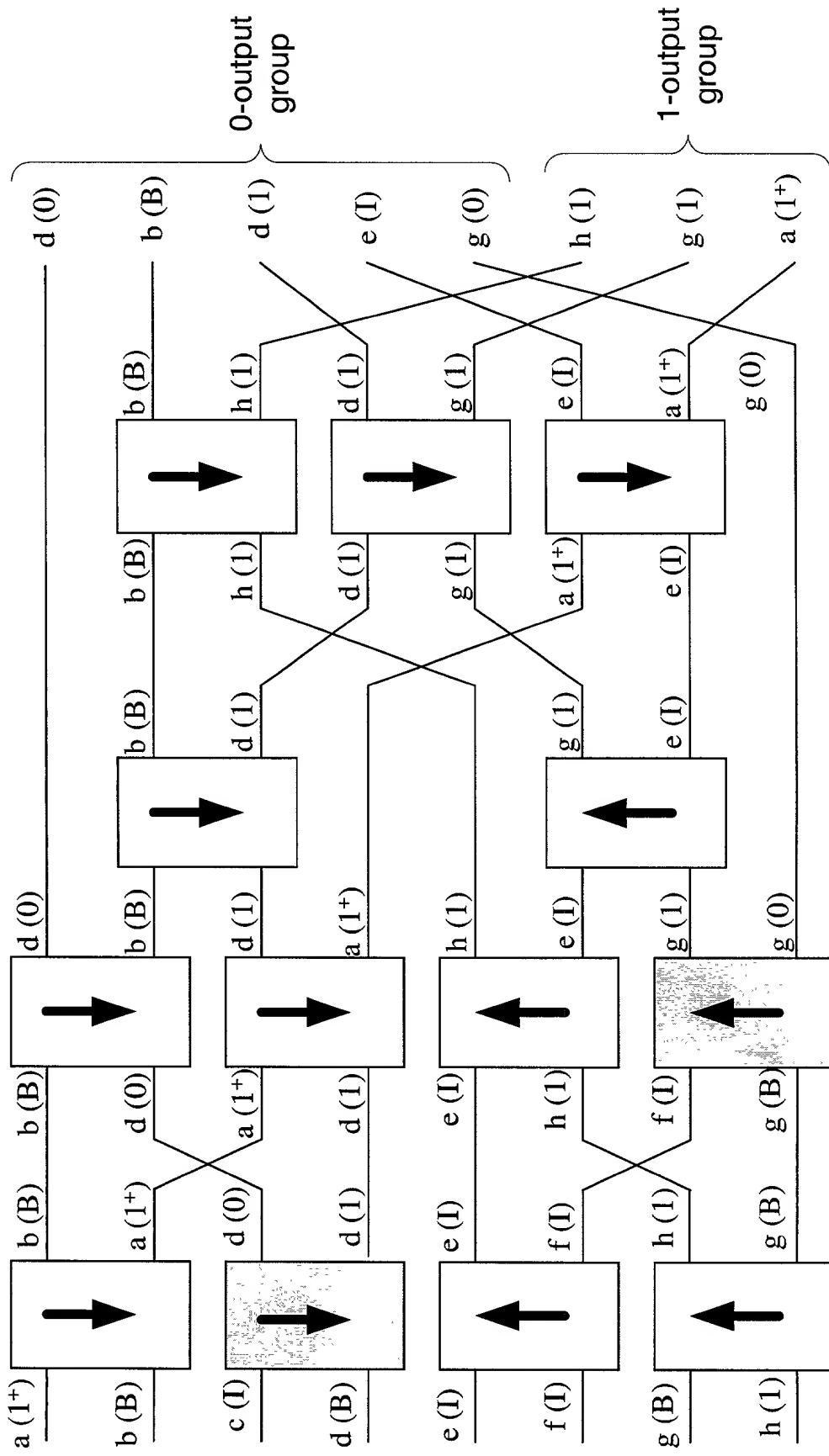


FIG. 72A

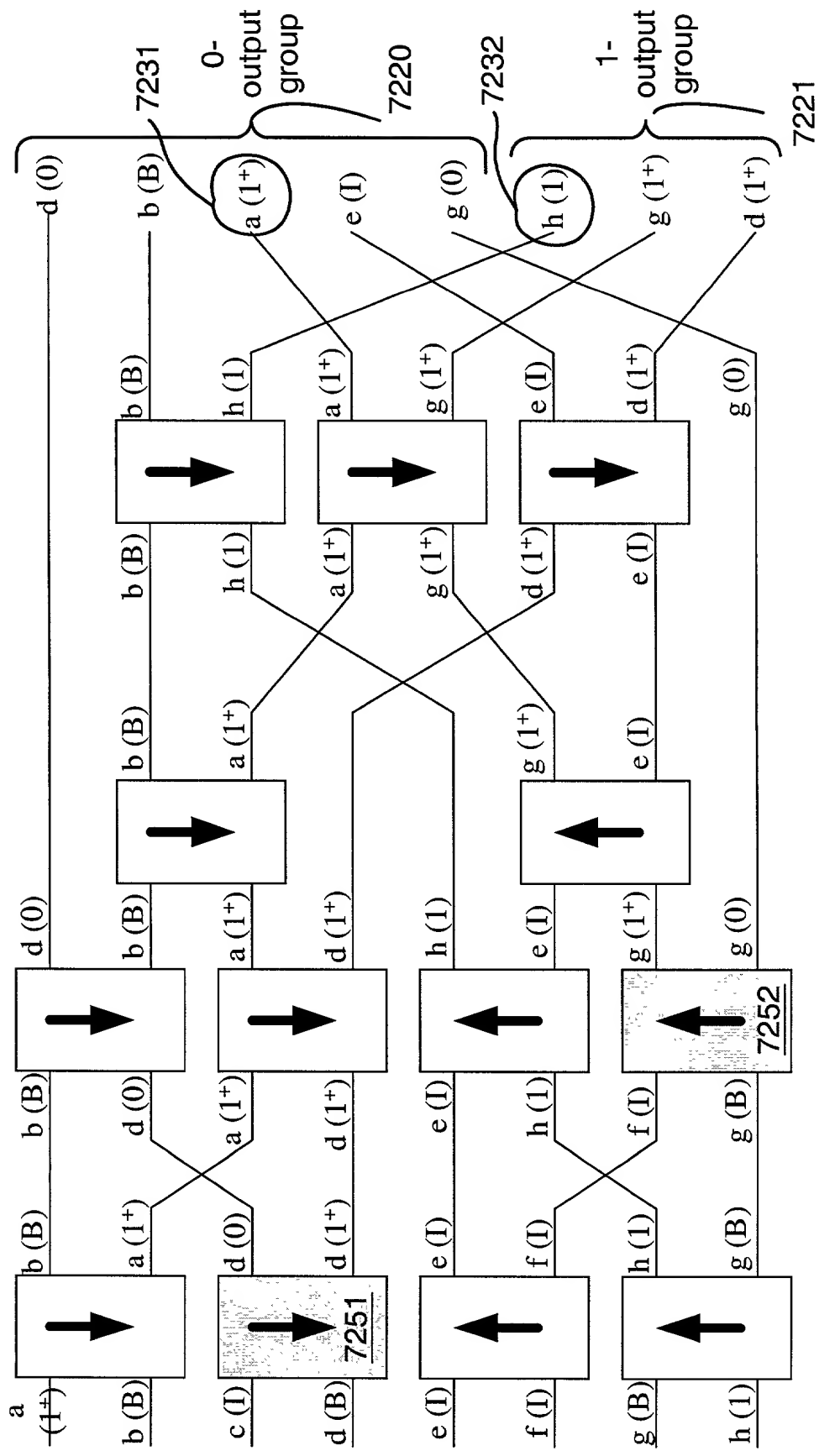


FIG. 72B

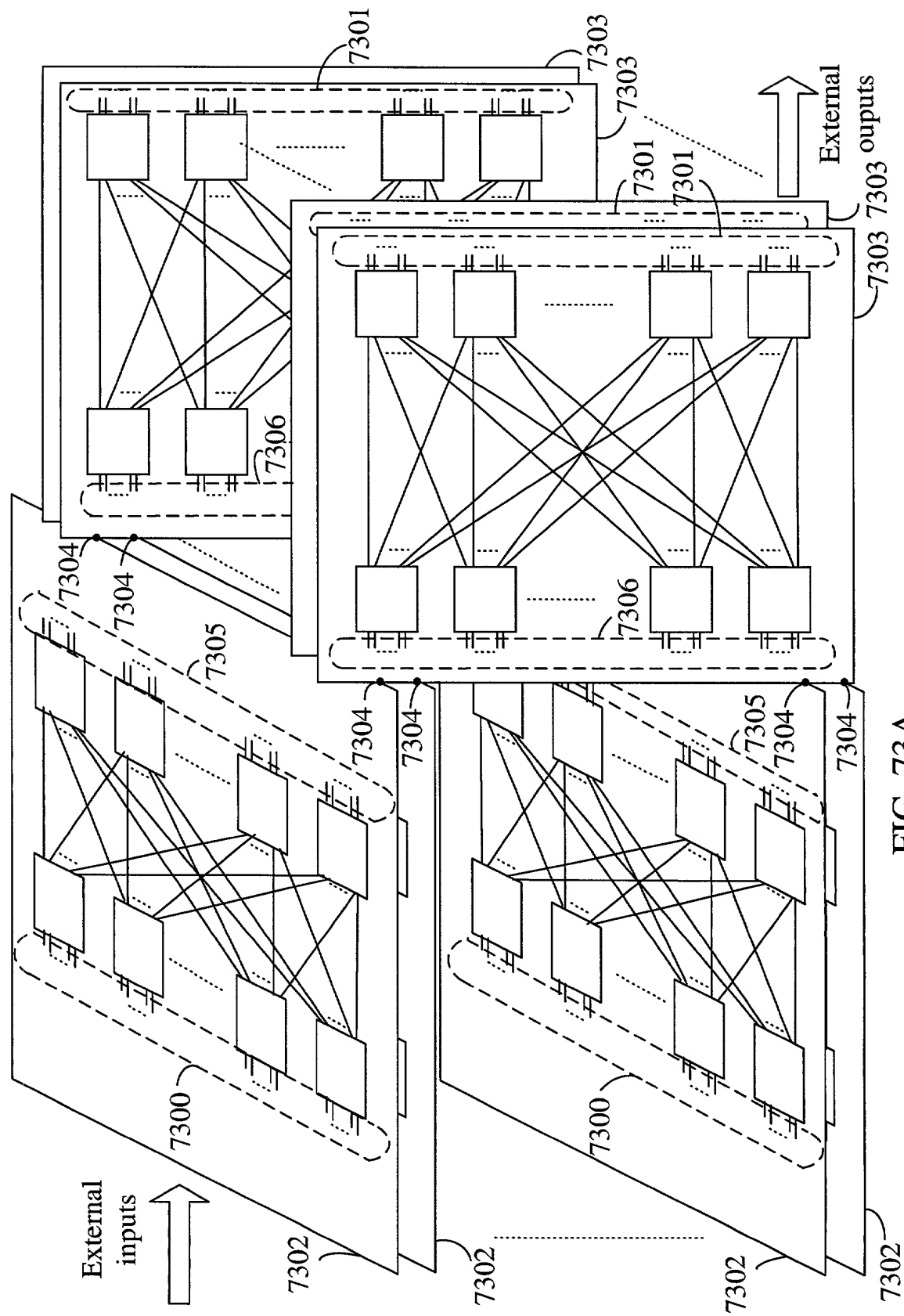
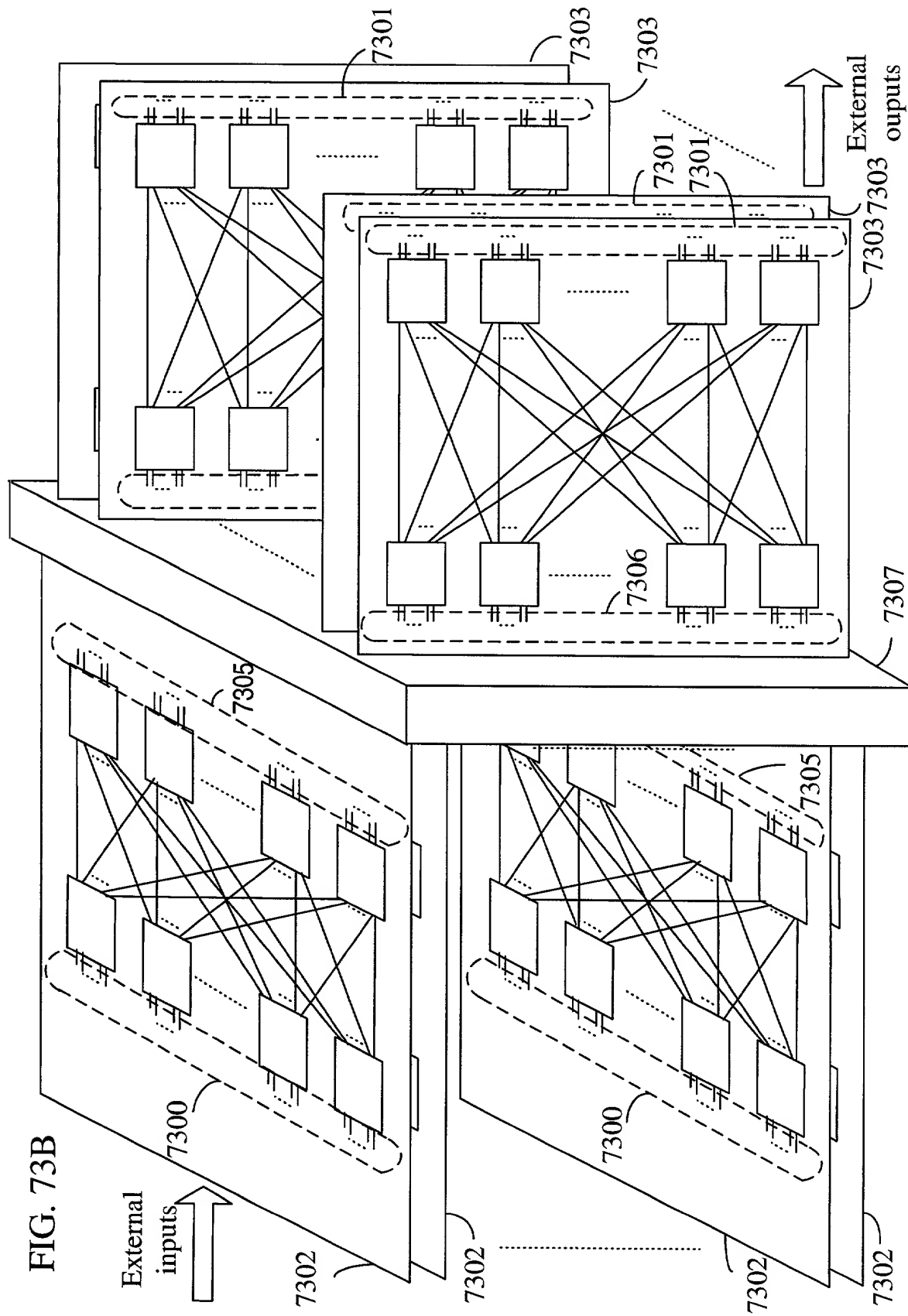


FIG. 73A



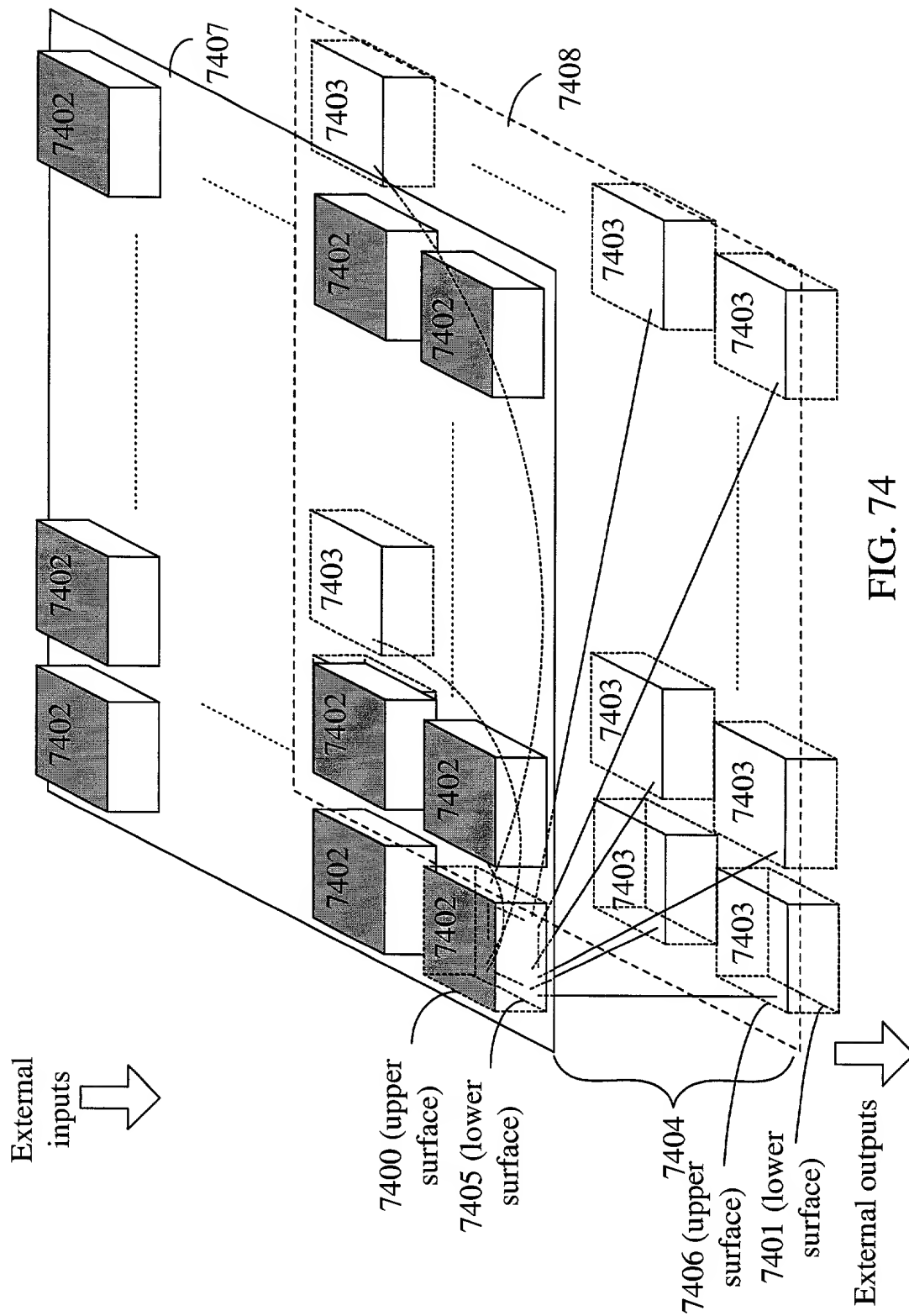


FIG. 74

FIG. 75A

